

THE ELEPAIO

Journal of the
Hawaii Audubon Society



For the Better Protection
of Wildlife in Hawaii

VOLUME 29, NUMBER 11

MAY 1969

THE HAWAIIAN HAWK FROM 1938 to 1949

By Paul H. Baldwin

Department of Zoology, Colorado State University
Fort Collins, Colorado 80521

During various visits and periods of residence on the Island of Hawaii from 1938 to 1949, I obtained approximately 50 individual records of the Hawaiian Hawk or 'Io (Buteo solitarius). Because few specific records of occurrence of this hawk have been published over the years, and because such records provide basic data for studies of distribution, I shall give the occurrence documented in my field notebooks and offer a few interpretive comments. Morrison (1969) reported the localities where the 'Io has been observed in the Hawaiian Volcanoes National Park during the two year period 1967 and 1968. My records from the same area will permit comparisons of the present with an earlier status of the hawk.

In the upper reaches of the Puna District an 'Io was seen one quarter mile south of the Twin Craters at the boundary of the national park, 3900 ft. elevation, at noon on Sept. 15, 1943. The habitat was dense, continuous mountain forest, wet in climate and varied in tree types but predominantly of 'ohi'a lehua (Metrosideros). Approximately one mile north of this locality at 3750 ft. an adult light phase female 'Io was shot by a resident at the edge of dense forest and a clearing (pasture) on Aug. 5, 1949. This bird had just killed a mynah (Acridotheres tristis); the hawk weighed 1 lb. 5 $\frac{3}{4}$ oz., had a wing length of 11 $\frac{3}{8}$ in. and a wing span of 36 $\frac{3}{4}$ in.

In the Chain of Craters area, close to Pauahi Crater, 3250 ft., an 'Io soared low over the road with feet dangling and lit in a tree at dusk on July 23, 1938. At Aloi Crater, 3150 ft., in the evening of July 9, 1938, a hawk soared down into the crater and screamed repeatedly from the tall 'ohi'a lehua trees on the side; it soared out again and away to the south. At the same crater on Dec. 29, 1938, at 2:30 and again at 4:00 p.m., an 'Io gave shrill calls from the pit. Earlier in the afternoon it was wheeling about within the crater and over the rim; later it was perched on an 'ohi'a lehua stump of small diameter at the brink but soon flew down to the interior. A disgorged hawk pellet of fur and bones was picked up at the rim of the crater the same day; it contained fragments of the jawbone and several teeth of a small rodent (probably house mouse). At Kakaopuhi Crater, 2050 ft., on June 6, 1941, at 3:00 p.m., one 'Io appeared in the 30 ft. 'ohi'a lehua trees above the rim at the east end and sat a few minutes before flying into the crater.

Farther down the flank of Kilauea on the Kalapana Trail in Kealakomo, 2430 ft., two 'Io soared together at 11:00 a.m. on Nov. 14, 1941. One gave a series of short, high whistles, the other gave occasional lower, harsher notes. This was over dry

forest of broken, semi-open character. South of this at Naulu, 1800 ft., in Kealakomo, an 'Io soared near the edge of the pali (cliff) on March 18, 1943. I never saw the 'Io along the dry, nearly barren shoreline to the south, but in forested lowlands to the east I found an 'Io soaring back of the strand zone a few miles southwest of Pohoiki on June 8, 1941 at 2:30 p.m. and another flying close to lauhala (Pandanus) trees at the edge of the strand at Honolulu Landing in the Puna District and northwestward along the shore for two miles from 9 to 11 a.m., August 29, 1941 (some of the latter habitat was inundated by lava a decade later).

A numerous sightings were made in the Kau District. At Kilauea Crater, 3970 ft., an 'Io flew out of the crater and lit in an 'ohi'a lehua tree close to the east rim near a park residence at 8:00 a.m. on Dec. 28, 1944. Relatively frequent visits to Bird Park (Kipuka Puauulu), 4000 ft., resulted in several records, although the hawk was actually infrequently seen there. The records are:

Jan. 10, 1941, 8:52-10:02 a.m., one hawk to north
 Feb. 27, 1941, 10:40-11:15 a.m., one hawk, light phase
 Mar. 26, 1941, 8:50-9:24 a.m., one hawk seen in distance
 Aug. 31, 1949, 11:01 a.m., one hawk
 Sept. 20, 1943, a.m., two hawks flying together, one dark other light in color
 Oct. 27, 1943, 10:19 a.m., one hawk
 Nov. 29, 1942, ca 3:30 p.m., three hawks soaring together over lower part of Bird Park; gave repeated short cries

The habitat was forest of koa (Acacia), 'ohi'a lehua and others with many openings for either grass or bare lava in adjacent areas. The trees were generally very large, and the climate was moderately wet (see Baldwin, 1953). Hawks were seen even less often in the koa parklands of Kipuka Kulalio and Ohaikea despite very many visits. Thus, at Ohaikea, 5000 ft., A.B. Medeiros, warden, reported two hawks, one perched on a koa limb, the other soaring, on Oct. 8, 1943; and at Kipuka Kulalio, 6250 ft., one hawk was seen flying at 2:00 p.m. on June 3, 1949. Beyond the national park to the southwest, A.L. Mitchell reported an 'Io soaring low over shrubby country at about 8500 ft. on the Ainapo-Mauna Loa Trail on Dec. 26, 1942.

The remaining records were made on occasional trips to areas distant from the national park boundaries. In South Hilo District, at Akaka Falls, 1225 ft., I saw two 'Io fly upward about 400 feet to the top of the canyon wall and perch in a tree at the rim on Jan. 4, 1939; sugar cane fields and forest patches were in the area. An 'Io was observed near the "14 $\frac{1}{2}$ -mile store" above Hilo on Nov. 13, 1942.

In the Hamakua District, one hawk was seen near the saddle road on the Puu Oo Ranch at 5500 ft. on Nov. 15, 1943, and one hawk was observed in the Waipio Valley, 10 ft. elev., on Nov. 17, 1948, at midday; there were many openings in the forest of the valley floor. For the Kohala District, I was told by Ronald Von Holt, rancher, that he saw one 'Io at Makapala (Kahua Ranch?) on Sept. 24, 1943, and that there was at that time a pair of 'Io in the big Honokane Valley back (NW) of the Kahua Ranch.

In North Kona District, 'Io were regular residents of the Waiho area, one to four miles south of Puu Waawaa on the Puuwaawaa Ranch. Here at Waiho, 3000 ft., on April 11, 1942, I saw one 'Io perched in a tree and rode under it on horseback; it was reluctant to fly. At the same locality on Nov. 16, 1944, three hawks were soaring together at 4:00 p.m., and two were present one and one half miles to the north at Poohohoo, 3700 ft. The Waiho area included the lower edge of a mamani (Sophora) forest on rough ground, with much poa (Poa sp.) grass and many weeds in the grazed paddock. At the west end of the paddock the trees were about 40 ft. apart on the average and rather uniformly scattered over the sloping terrain. In this habitat I witnessed a hawk at 10:30 a.m., Nov. 18 take an object of food. The bird was soaring about 100 feet up and suddenly glided sharply downward, flexed his wings halfway or more, put out a leg, seized a dragonfly and levelled off about

20 feet up. At the moment of the catch I could not tell whether one or two feet were used. The hawk continued flight until out of my view. About 10 more dragon flies at the spot continued to fly undisturbed and unexcited. Shortly later two hawks soaring over the paddock made considerable noise. The hawk population at Waiho was the densest I ever observed on Hawaii. Spending the day there, a "pair of hawks" appeared every hour or so. Also in North Kona, two 'Io were seen at the Kahului Forest Reserve, between 2250 and 2750 ft., on Nov. 17, 1942, and one 'Io was heard on the trail to Puu Lehua Ranch above Kealahou in November 1942.

In South Kona District I noted the 'Io as follows: one seen three miles north of Papa at 1400 ft., one at Papa at 1800 ft., and one heard in the forest above Milolii at approximately 1500 ft. all on Nov. 27, 1942.

	Number of hawks tallied	Number of times singles were seen	Number of times two or more were seen together	Calls recorded (screams, etc.)
Jan.	3	1	1	
Feb.	1	1		
Mar.	2	2		1
Apr.	1	1		
Jun.	3	3		
Jul.	2	2		1
Aug.	4	4		
Sep.	6	2	2	
Oct.	3	1	1	
Nov.	24	8	7	7
Dec.	4	4		2

A tabulation (above) of all records for individual hawks shows strikingly that the birds were often in groups from September to January, when I made a number of multiple sightings. The rest of the year my records were invariably for single birds, i.e., February to August. This suggests that the 'Io is more gregarious in the late summer, autumn and early winter than at other seasons. Possibly small groups may have been families with one or more young together with one or both parents, or some may have been aggregations of young of the year from different nests.

The time of nesting of the 'Io in the Kau District is indicated as early summer by a record of Walter R. Donaghho's, who saw the nest of an 'Io in July (1935?) that still contained one young. He found the nest "in a branch jutting out halfway up in a tall ohia that stands near the Kilauea Forest Reserve fence on the high bank north of the ranch house," i.e., Keauhou Ranch, elev. about 4100 ft. Also he reported seeing a "mother hawk feeding her offspring" at Makaopuhi Crater in the summer of 1937 (Donaghho, 1937).

The tallies above suggest also that the hawks are prone to more voicings in the time of year when they are gregarious and silent much of the time in other seasons; however, Munro (1944) mentions that the hawk in its courtship flight rises high, squeaking as the pairs wheel in wide circles.

The records of occurrence of the 'Io in the Hawaiian Volcanoes National Park recently published by Morrison (1969), when compared with the above, suggest two conclusions to me. One is that the hawk has continued to occupy the same areas in the park where it was found during the span of years 1938 to 1949 and apparently even frequents certain additional specific localities, e.g., Park Headquarters, Namakani Paio, and Hilina Pali. The other is the indirect inference that the numbers of hawks in the park must now be not fewer than were there during the former period and on the contrary are probably greater. The rate of accumulation of sightings as reported by Morrison over the two year period 1967 and 1968 seems distinctly greater than that achieved in the earlier period. This perhaps could be the result of availability of more observers and hence more continuous observation

in the habitats frequented by the hawk, but I am more inclined to interpret the large number of records obtained in the park recently as reflecting an increase in the size of the hawk population. I doubt that a few more observers in those earlier years would have given as great a frequency of sightings as reported by Morrison.

Literature cited

- Baldwin, P.H. 1953. Annual Cycle, Environment and Evolution in the Hawaiian Honeycreepers (Aves: Drepaniidae). Univ. Calif. Publ. Zool., 52: 285-398.
Donaghho, W. 1937. Report of Bird Study Project. Hawaii National Park. MS.
Morrison, G.T. 1969. Hawaiian Hawk. ELEPAIO, 29: 75-78.
Munro, G.C. 1944. BIRDS OF HAWAII. Honolulu: Tongg.

WE'RE BOTCHING CONSERVATION!...DO YOU CARE? *

By Ray Kramer

In May of this year I attended the annual meeting of the Conservation Council for Hawaii and, as in past years, I came away almost totally disheartened. Why? Because I didn't see you there...

In past years, I've also attended meetings of the Hawaii Wildlife Federation, the Audubon Society, the Hui Manu, the Hawaii Botanical Society and the Outdoor Circle. I have personally found them all to be organizations of basically "nice" people, but I've also noted that, while their stated concerns are for conservation or preservation of Hawaii's natural resources, their functioning is most often that of separate "special interest groups."

The gaping divisiveness of these splinter-groups is manifested not only by each organization's refusal to cooperate with, or even attempt to understand the goals of other organizations but by the entire assemblage's apathy to the needs for reform within the state and federal government organizations that are charged with the management of these natural resources.

About the only indication of the existence of a "resource conscience" to occur in Hawaii in many years was the recent battle to preserve portions of Diamond Head.... In most other resource problem areas, the local societies that claim interest in "conservation or preservation" appear to be incapable of gathering sufficient numerical support (with the notable exception of the Outdoor Circle) or political power, to lead a march on either city hall or the governor's office.

Instead, they expend their energies drafting and re-drafting resolutions that are received by government officials with a nod and a smile, a polite "thank you" and a pat on the head for "a citizens' job well done."

My intent here is not to condemn these well-meaning, and potentially effective, organizations but to point out that, except within the limitations of their own special interest, they are almost totally uninformed of the problems--past, present and future--of our Island ecosystem.

My further intent is also to state that while they as organizations are ignorant, the public is apathetic and our appointed and elected officials are ignorant, apathetic, and indifferent to their inherited environment.

...It would take a rather long book to enumerate and discuss all the resource problems and their ramifications in Hawaii today, but let us take a quick look at some past history and at some of the present faunal problems before theorizing where action is needed and how it might occur.

Did you know that, since Captain James Cook first landed in Hawaii, 24 species

of native birds (all of which were, scientifically speaking, just as important as the famed Galapagos or "Darwinian" Finches) have become extinct? Do you care? Do you know that, because of a group of politically powerful sheep hunters on the Big Island, the Mamane-feeding native bird known as the Palila is well on its way to becoming the 25th example of the Hawaiian citizens' disinterest in his heritage? Do you care?

You are all aware that a cattle rancher who intends to remain in business sees to it that the number of cattle in his pasture never exceeds the capacity of the vegetation to reproduce itself and if, for reasons of drought or even too much rainfall, the cattle begin to destroy the mother plants or the land on which these plants grow, the rancher removes a number of animals from this land for a period of time.

In range management terms, this rancher is determining the "carrying capacity." From 1921 to 1946, more than 46,000 feral sheep were removed from the upper slopes of Mauna Kea, but this great number of animals had caused almost irreparable damage to the native forest. Biologists of the division of fish and game calculated in 1964 that the "carrying capacity" of this forest reserve was somewhere in the neighborhood of 1,300 to 1,500 sheep.

A group of Big Island sheep hunters...decided that this was not a sufficient number of animals to provide them with the food and sport they desired. Since they were about the only persons who cared enough to attend public hearings that set bag limits and season lengths, their desires overruled the recommendations of the game biologists. Bag limits were sharply curtailed in 1964 and 1965, the 1966-67 season was totally closed, and the sheep population soared. A very short hunting season was held in 1967 and produced a kill of 8.18 animals, but a sheep count held in March of 1967 had shown a head count of over 3,750 animals.

Unless the division of fish and game is allowed to hold a wide open hunting season immediately, it's entirely probable there will be somewhere between 5,000 and 6,000 sheep on the mountain at the end of this year! This is four times the population of 1964 and four times the carrying capacity. You can imagine the devastating effect on that native forest and the other life forms that seek its shelter. Do you care?

Assistant Park Naturalist Samuel Lamb wrote an article concerning the problem of goats on national parks lands. He said: "...It is a well-known policy of the national park service to preserve its lands in as nearly a natural state as is possible. Since goats are not native to Hawaii, they are an unnatural element. Also that they are very destructive to the native forests has often been shown. Over much of the area driven, all forms of plant life have been reduced to a minimum, giving a very desert-like appearance to the landscape.

"Now that the goats have been brought under control, it is believed that some sort of vegetative cover will return over large areas. This will help to stop the erosion that has been in progress for many years as well as helping bring about habitat conditions suitable for some of Hawaii's native birds..."

This all sounds very truthful, logical, and sound, doesn't it? The trouble is that the article was written 30 years ago for the Holiday Issue of the 1938 PARADISE OF THE PACIFIC magazine! In the 25-year period following that statement, 25,254 more goats were removed from national park lands on Hawaii and it's my personal contention that more than 5,000 goats still reside on those lands.

At Haleakala national park on Maui, rangers' files show that, from 1946 until 1964, 11,870 goats were killed by rangers, either in or adjacent to the park boundaries. There are still several hundred animals in the park and I can find no evidence that rangers are doing any more than cropping off the annual increment.

In view of the recent proposal of the national park service to acquire areas on Kauai for inclusion in another national park, I find the above-listed statistics

great food for thought. There are an estimated 2,000 goats inhabiting Waimea Canyon and the Na Pali cliffs. These animals are kept in almost static balance by sport hunters.

Under national park regulations (which would take an act of congress to change), no "sport hunting" is allowed and animal control has to be under the direct supervision of park rangers. Park personnel have told us not to worry--that they could handle the goat problem. I have no doubt that they could, but the question comes to mind if they would? Do you care?

Did you know that the programs to keep such birds as the Hawaiian goose and the Hawaiian duck from becoming extinct are financed primarily from either federal money or from private conservation organizations? Comparatively little money is allocated by our state legislature for these programs, and it's usually only forthcoming after long and hard-fought battles. Do you care?

You may know that, for the past 52 years, there have been a small number of very specialized kangaroos living on Oahu but did you know that this "Brush-tailed Rock Wallaby" is so rare in much of its native Australian range that I have received requests to trap some in Hawaii and ship them back to Victoria for a restocking program?

Unfortunately, this is presently impossible because our small Wallaby population is suffering from a drastic reduction in available living space and may become extinct in a few years. You should be aware that not one penny of government funds has ever been spent to understand, let alone remedy, this problem. Do you care?

Apparently some people in the state are finally "caring"--and doing something about this particular state of ignorance. In the second summer session of courses to be held at the University of Hawaii, there will be (for the first time in the history of this state) a course in conservation! ...

My concern is not only in how we go about solving and administering our present day problems, but how we go about educating our youngsters so that they grow up with a resource ethic that is so strong that it over-rides self-seeking interests. Certainly the first, if not the only, step is to educate them. They must know, without recourse to the dictionary...what an ecosystem is.

They must also recognize that, like the sun, the rain and the air, they are major factors in the Hawaiian system, and that man, unlike any other factor of an ecosystem, is capable of voluntarily conserving, preserving or destroying it.

There's one major problem that confronts us if we are desirous of setting up a Hawaiian natural resource curriculum. Where do we get the necessary facts and figures to institute a program that involves problems that are, for the most part, unique to Hawaii? It would be impossible to rely, without great editorial change, on the materials available to Mainland states; the environment, the animals, and the plants, and their attendant problems are just too different to be useful for other than comparative purposes.

The answer is, of course, to provide a repository and disseminating organ within our own state government. I am sure that the many competent natural scientists in our community would welcome the opportunity to present, in lay terms, the natural history information which they can presently only submit, in appropriately scientific jargon, to some professional journal. Such a magazine, which would eventually become a compendium of natural resource information might be administered by a professional division under the auspices of either the department of education or, perhaps more traditionally, by the department of land and natural resources.

Perhaps you don't know it, but Hawaii is the only one of the 50 states that doesn't publish some form of magazine or newsletter in the fields of wildlife, forestry, natural history and recreation philosophy, fisheries science, and just

plain "outdoor lore." It would serve to place before the public a history of the wild heritage of the Hawaiian Islands; it would lay before you the present and planned programs of the department of land and natural resources (and hopefully those of the relevant department of agriculture and department of health projects); and it could serve as a sounding board for conservation theories by any interested group or individual citizen who cared to espouse a logical view.

Why hasn't this been done before? Well, the subject has been broached several times over the past 10 years, but has been summarily rejected each time by your legislators. There's never been, in their view, even the need for a feasibility study. Legislators who have been approached by resource administrators merely throw the problem back by saying, "No, if you fellows want to toot your own horn, you can do it through news releases. Anyway, it would cost a lot of money?"

They seem to have missed the point. Certainly such a project would cost a fair sum, as does any educational process. Unfortunately, because there was no such information source when they were receiving their education, they don't seem to recognize that Hawaii has already paid a far greater price, in terms of the loss of non-renewable natural resources, than any figure they could possibly name as being outrageously high.

In addition to the sampling of problems listed in this article our legislators apparently do not know that, while it takes from 10,000 to 100,000 years to create naturally one inch of living topsoil, Man in Hawaii, in only 189 years of settlement, has lost forever into the sea, up to fifteen feet of topsoil and sub-strata from many areas on all islands! Will our grandchildren--and our grandchildren's grandchildren--look back at us with anger and disgust for our indifference, ignorance, and apathy? Do you care?

+++++

DO YOU CARE? If you do, your KOKUA is needed to pass on to the next generation some understanding of the unique Hawaiian ecosystem. Please send in suggestions and articles to Kojima, 725-A 8th Avenue, Honolulu, Hawaii 96816.

RATS IN THE TOKELAU ISLANDS

By E. H. Bryan, Jr.

An ecological survey of rats and other vertebrates of the Tokelau Islands, three atolls lying to the north of Samoa, has been made by Dr. Kazimierz Wodzicki, of the Department of Scientific and Industrial Research, Wellington, New Zealand.

A report on the first phase of this survey, 19 November 1966 to 25 February 1967, was published by the Tokelau Islands Administration in association with the Departments of Maori and Islands Affairs and Scientific and Industrial Research, Wellington, N.Z., March 1968. It tells of the expedition, the environment of the Tokelau Islands, the rat ecology and control measures, and reviews the birds, reptiles, land invertebrates, and flora of Nukunono atoll, with a discussion of rodent identity and distribution, population dynamics, rat damage and control problems. Appendices give further details concerning rats, their control, turtle parts, ecological studies in the Tokelau Islands by Dr. C.P. Hoyt, and of the plants by B.E.V. Parham.

This thick report has been followed by "The Tokelau Rat Survey 2", Wellington, New Zealand, October 1968, which reports further studies made 18 April to 15 June 1968. In addition to reporting results of this second survey, it discusses rat control trials, training rat control operatives; rat autopsies and estimate of rat population on Nukunono, the middle one of three atolls; a discussion of rat damage and control measures, conclusions, recommendations and bibliography. The conclusions and recommendations can be summarized as follows:

1. The follow-up survey confirms that the Polynesian rat is the only rodent in the Tokelau Islands. A mouse was reported. Measures should be taken

to prevent the establishment of other rodents.

2. Valuable information was obtained on the relation of rat damage to coconut productivity, there being damage on some islets and not on others.

3. Considerable progress was made in screening control measures suitable for the Tokelau Islands. Zinc phosphide appears to be particularly suitable in coconut groves, and anticoagulants with or without snap-traps in villages, where acute poisons are not indicated.

A separate mimeographed article by Dr. Wodzicki considers the use of Japanese weasels to control rats in Pacific Islands, as proposed by Professor T.A. Uchida, based on studies made in the Ryukyu Islands using Mustela sibirica itatsi Temminck and Schlegel. Dr. Wodzicki decided against the introduction of this weasel for several reasons.

+++++

(Copies of all of the documents noted above may be consulted at the Pacific Scientific Information Center, Bernice P. Bishop Museum, Honolulu.)

Field Trip 9 March 1969 Shore Birds by Charles G. Kaigler

The final shore bird trip of the season on March 9 was lightly attended, but highly rewarding for those who did participate. The first stop at Sand Island produced one gull, tentatively identified as an immature herring gull, as well as the usual collection of golden plovers, ruddy turnstones, wandering tattler and sanderling. All are beginning to change to their breeding plumage. Of course, both doves and both cardinals were seen during the day as well as mynahs, house finches and sparrows. The song of the mockingbird was heard. We also stopped at Keehi Lagoon Park where turnstones were observed feeding in the grass areas. Hickam Harbor, however, provided the highlight of the morning as six brown boobies soared and fished offshore, one approaching to within 100 yards of our group. Stilt, plover, tattler, turnstones and sanderling (30 in one group) were all seen here at close range.

The Waipio airstrip area mud flats held over 100 plover, 10 shovelers, the lonesome mallard, one coot, three herons, stilt and tattlers. The kiawe and cane were full of black-headed mannikins including many immature. Several members also saw ricebirds and a pair of strawberry finches.

The final stop on the far side of Waipahu produced few birds but did add the cattle egret to the day's total.

+++++

Field Trip 13 April 1969 to Ulupau Head by Hildegard Kaigler

Some 35 members and guests enjoyed the annual Audubon Society's visit to the colony of red-footed boobies on Ulupau Head in the Kaneohe Marine Corps Air Station on April 13, 1969. The group assembled at the main gate and was provided an escort throughout the firing range to the colony site. Enroute to the site, the primary objects of interest were the large number of golden plovers, most in full breeding plumage, soon to depart the islands for their migration to the far north. Dr. Pyle briefed the group as to what they should look for in the bird category and what to look out for in the unexploded demolition category. The scopes were set up and the colony observed. Some of the boobies were still engaged in carrying twigs to the nests. No young were observed. Frigatebirds were harassing boobies in flight, and an extra bonus was provided by the antics of three whales offshore. Common noddies were also observed flying low over the waves.

The scopes were moved to the top of Ulupau to overlook Moku Manu, and from this vantage point the group observed great numbers of sooty terns, noddies, frigatebirds, and red-footed boobies as well as a pair of masked boobies. More whales and one sea turtle were seen. On the return trip, several of the group stopped at one of the ponds in the base and added the wandering tattler, the stilt, the black-

crowned night heron, the ruddy turnstone, the sanderling and the Hawaiian noddy to their list for the day.

Field Notes from John L. Sincock, Koloa, Kauai, 15 April 1969: Stilt, Golden Eagle and Osprey.

I have initiated a small scale study of populations and movement of the Hawaiian stilt. Because of the multiple species of birds we are studying on the Endangered Species Program here in Hawaii only 3 or 4 weeks per year can be allotted to the study of the wetland species. Last year in cooperation Eugene Kridler and Win Banko, Bureau of Sport Fisheries and Wildlife, and biologists of the Hawaii Division of Fish and Game, we conducted a state wide census of the Hawaiian stilt. A total of 1287 stilt was counted on July 24, 1968. Possibly 70 stilt may or may not have been on the "Forbidden Island" of Niihau at the time of the census, so the range of the estimate was 1211 to 1357.

Eugene Kridler assisted me in capturing and dyeing 48 stilt bright yellow on Kanaha Pond on the island of Maui during the period October 21-29, 1968. One of these yellow dyed stilt was seen on Oahu during the midwinter waterfowl inventory in January, 1969; thus establishing that there is interisland migration, as we suspected. In late January 1969 I captured 4 stilt in the taro patches near Hanalei, Kauai, banded them and dyed them green. The plan is to dye a portion of the population on each island as follows: Oahu-red, Kauai-green, Maui-yellow, Hawaii-black.

It is hoped that for the next few years we will be able to continue our cooperative statewide count of stilt each summer to determine population trends.

I have heard nothing about the golden eagle recently; the last I recall Jack Harter, helicopter pilot, saw it last August in the vicinity of Haupu range on the south side of Kauai.

While trapping stilt at Hanalei in January 1969 I did, however, have an erroneous report of the golden eagle. Mr. Ronald Nakazawa told me that he thought the eagle was using a pond near Kilauea. On January 22, 1969 I met Mr. Nakazawa about 4:30 p.m. and he guided me to the pond, Puukaele, and the bird in question was an osprey. Mr. Nakazawa told me that he first observed the bird near this pond during the first Sunday in November 1968; and since that time it usually could be seen during the evening hours perched in a tree near the pond or diving for fish.

HONOLULU STAR-BULLETIN, 24 April 1969, page B-9: Lone Eagle Still Flies Over Kauai by Harold Ching: Eagles don't belong in Hawaii but one was spotted flying over Kauai two years ago. Here is a progress report.

The solitary American golden eagle of Kauai's little Grand Canyon of the Pacific, appears to be developing his anti-social tendencies. The lonely existence among the canyons and mountain ranges of the Garden Island, without the companionship of his kind, may be starting to tell.

Charles G. Harter of Garden Island Helicopters comes across the big bird every now and then in various parts of the Island.

"When we came across him recently at Mount Haupu, he acted like he was mad," related Kauai's No. 1 eagle watcher. "We were flying from Poipu to Lihue. We wanted to get closer and possibly get a photograph. But he made like he was about to attack, so we peeled off and left in a hurry." The golden eagle is known to have attacked small aircraft....An eagle tangling with the rotor blades could cause a helicopter real trouble.

Harter, who reported the first sighting of the eagle in Waimea Canyon in February 1967, sees the bird only now and then. He has turned up in almost every part of the Island. It's not known if he's ever ventured to the little islands to the north, or to Oahu. "I haven't seen him for a couple of months now," Harter said.

...The last time he saw the eagle was in Olokele Canyon. "He's seen mostly on the dry side of the Island, particularly in the Olokele Canyon-Waimea area," Harter said. "That's the least accessible part of the Island. It's ideal for the eagle, which isn't particularly fond of human civilization."

There are more goats and also wild pigs in that area than in probably any other spot in the State, Harter said. It's difficult to get into, even for the best hunters. And apparently the chances are better for the eagle to find food there.

The eagle feeds on carrion, but Harter doesn't doubt that the big bird occasionally picks up a crippled or newly born goat or pig.

According to the wildlife biologists, the eagle was about three years old when first spotted on Kauai. It was then fully grown, with a wing spread of seven feet, but still had a white band across his rump and lacked the colorful golden feathers of a mature 4-year-old bird.

The bird should be about five years old now. Technically, Harter said, he could be around the wild canyons of Olokele and Waimea for 20 more years....

Excerpts from the minutes, Hawaii Audubon Society General Meeting, February 17, 1969:

...We had visitors from New York, New Mexico, and California....Charles Kaigler, Field Chairman, gave a report of the Society's trip of February 9 on the Honouliuli trail in the Waianae led by Alex Macgregor. There was good turnout and most participants saw the 'Elepaio, 'Apapane and 'Amakihi....Robert Pyle reported seeing a yellow-breasted Stilt! at Kahuku, which he explained was a Hawaiian Stilt dyed yellow by the State wildlife officials to trace the movements of the Stilt. Yellow is the color used for Maui.

Our speaker for the evening was Edwin H. Bryan, Jr., who gave a very entertaining and informative talk on Sources of Information on Hawaiian Birds, and he also brought a very valuable collection of books to show our group....

ALOHA to new members:

Life - Gordon B. Ruser, 1202 State Street Road, Belleville, Illinois 62221.

Regular - Mrs. Lucile Akridge, Prince 92, 1511 Nuuanu Ave, Honolulu 96817.

Dr. Donald C. Gordon, Jr., 2640 Dole St., (A-11) Honolulu 96822.

Mr. & Mrs. Thomas J. Horigan, 2563 Date St, Apt 303, Honolulu 96814.

HAWAII'S BIRDS, a field guide, available for \$2.00. Send in your orders to: Book Order Committee, Hawaii Audubon Society, P.O. Box 5032, Honolulu, Hawaii 96814.

MAY ACTIVITIES:

May 11 - Field trip to Poamoho Trail to study the native forest birds. Bring lunch, water, and if possible, your car. Transportation cost (\$1.00) to be paid to the drivers. Meet at the Library of Hawaii at 8:00 a.m.

Leader: Charles G. Kaigler, telephone 988-3195.

May 12 - Board meeting at the Zoo entrance bldg. at 7:30 p.m. Members welcome.

May 19 - General meeting at the Waikiki Aquarium Auditorium at 7:30 p.m.
Program for the night: Henry Yuen, a sophomore at the University of Hawaii, will tell us and show slides of the fairy tern at Koko Head.

HAWAII AUDUBON SOCIETY EXECUTIVE BOARD:

President-Miss Margaret Titcomb, Vice Presidents-Charles G. Kaigler & Jack L. Throp

Secretary-Mrs. Robert L. Pyle, Treasurer-William W. Prange, Jr.

Board Members: Dr. Robert L. Pyle & Gerald E. Swedberg

THE ELEPAIO: Editors-Miss Charlotta Hoskins & Miss Unoyo Kojima

MAILING ADDRESS: P.O. Box 5032, Honolulu, Hawaii 96814

DUES: Regular-\$3.00 per annum, Regular out of State-\$2.00 per annum, Junior (18 years and under)-\$1.00 per annum, Organization-\$2.00 per annum, Life-\$50.00