

THE ELEPAIO

Journal of the
Hawaii Audubon Society



For the Better Protection
of Wildlife in Hawaii

VOLUME 32, NUMBER 6

DECEMBER 1971

SIGHTING OF 'O'U ON KAUAI TRIP

By William P. and Mae E. Mull

During a four-day visit to the Island of Kauai in mid-September 1971, we stayed at a cabin in Koke'e State Park and spent our days walking the trails of the northern section of the Alaka'i Swamp area, which borders the east side of the Park. On our third day in the field, September 17, we hiked about two miles east along the Kohua Ridge Trail, which begins at the Mohihi Gauging Station at the end of Camp 10 Road, a seven-mile-long jeep road that begins at Koke'e. We were halfway back to Mohihi when we sighted a male 'o'u (Psittirostra psittacea) in a Tetraplasandra tree about 30 feet down the south slope (Koaie River valley side) from the trail.

The 'o'u is one of the six rare and endangered Hawaiian forest birds among the uniquely intact endemic avifauna of Kauai (see Richardson and Bowles, A Survey of the Birds of Kauai, Hawaii, Bernice P. Bishop Museum Bulletin 227, Honolulu, Hawaii, 1964; and Rare and Endangered Fish and Wildlife of the United States, U.S. Department of the Interior/Bureau of Sport Fisheries and Wildlife, Washington, D.C., 1970). Although the species is still believed to exist in small numbers also on the forested eastern slope of Mauna Loa on the Island of Hawaii, it is regarded as extinct on all the other islands of its former range in Hawaii, except Kauai. The last published report that we can find of an 'o'u sighting was that by Gauthey, et al (The Elepaio, 29:19-20), on June 2, 1968, on the same Kohua Ridge Trail.

We had spent the two previous days walking the Pihea Trail and the Alaka'i Swamp Trail, studying the more common endemic forest birds of the Alaka'i area ('apapane, 'i'iwi, 'anianiau, Kauai 'akepa, Kauai 'elepaio, Kauai 'amakihi and Kauai creeper). The 'o'u attracted our attention by its whistling calls and singing, which were markedly different from any of the sounds we had heard from the other birds of the Alaka'i area.

We located the bird only a few feet above our eye-level among the middle branches of the Tetraplasandra tree. The foliage of the tree was rather sparse and open, and the light from the slightly overcast sky was bright and flat. We watched the bird through our binoculars under near-ideal conditions for about ten minutes as he called and sang, leisurely moving from branch to branch through the Tetraplasandra tree and into an adjoining 'ohi'a (Metrosideros) tree, before he flew off up the trail to the east. Apparently he alighted no more than a few hundred feet away, since we could hear his calling and singing for a few moments after he disappeared from our sight.

His identity was readily apparent from his size and coloration -- even before we took close notice of his short, pale, parrot-like bill to confirm the identification. His bright-yellow head and neck, olive-green upperparts and light underparts were like no other bird on Kauai; and he was distinctly larger than an

'apapane and an 'anianiau that briefly shared the trees he was in while we watched him.

In his finer details of appearance, we found it interesting to compare our notes and recollections with available published illustrations of the male 'o'u. The individual we observed appeared to have a distinct pinkish cast to his otherwise very pale bill, as indicated in Hawaii's Birds (Hawaii Audubon Society, 1971 edition) but not in A Field Guide to Western Birds (Peterson, 1961 edition). The back, folded wings and underparts appeared quite a bit lighter than portrayed by Peterson. We noted a distinct dark line from the front of the eye to the base of the upper mandible more clearly apparent than the bare hint of such a line in both Peterson and Hawaii's Birds. We hasten to recognize that such minor variations in color are common among individual birds of the same species, but we thought our impressions worth noting since our observation was made under unusually good field conditions.

In his movements and behavior, the 'o'u was deliberate and unhurried. He showed no nervousness about our presence, even though we were clearly visible and audible to him as we moved about on the trail to maintain the best view of him and commented to one another about how he looked and acted. Also, he showed no reaction to the 'apapane and the 'anianiau as they flitted and fluttered within a few feet of him on their zigzag course through the foliage in search of insects. The 'o'u scraped his bill on his perching branch several times but did no feeding. Calling and singing was his main activity while we watched him, and he voiced his messages (whatever they meant) with purposeful vigor and volume. His flight was strong and even, and his wingbeats seemed slower than those of the 'apapane and other smaller forest birds around.

His call note was a single, somewhat prolonged, whistle with a slight drop in pitch at the end, which gave it a "plaintive" quality. He called repeatedly, and occasionally sang in what sounded like a series of call notes interspersed with small groups of shorter notes. The clarity of the 'o'u's whistled notes reminded us of the cardinal and of some caged canaries we've heard, but the "plaintive" quality reminded us of the "old Sam Peabody-Peabody-Peabody" song of the white-throated sparrow, somehow. We did not hear the bird call or sing in flight.

We watched the 'o'u from about 3:20 to 3:30 in the afternoon. Twenty minutes later and a few hundred feet down the trail to the west (opposite the direction in which the 'o'u had flown), we again heard an 'o'u calling close to the trail. We located the bird in an 'ohi'a tree about forty feet away, again on the south slope of the ridge. This bird was less easy to see, because it was in denser foliage and called less. We could see that it was a male 'o'u. In the 2-3 minutes it stayed there, it called a few times and scraped its bill on its perching branch, but did not move within the tree until it flew off toward the southwest and alighted in an 'ohi'a tree about a hundred yard away, out of our sight, where it called a few times and then fell silent.

Although both sightings were in the same general area within twenty minutes of each other, there is a distinct possibility that we saw two different individuals, since the first-sighted bird flew off to the east, opposite the direction in which we found the second-sighted bird, which in turn flew off in a westerly direction, opposite the direction in which the first-sighted bird had moved. But they were both males with no discernible difference in appearance, so we cannot say whether they were two or one.

The area of the sightings was at an elevation of about 3,900 feet, on a sharp east-west ridge that drops off steeply on either side. The dominant tree in the area is 'ohi'a, with a scattering of others like Tetraplasandra and lapalapa (Cheirodendron) forming a rather broken and open canopy along the ridge. At the time of our sightings, temperature was in the 60's, wind was calm to slight from the east, and cloud cover was about 90 percent -- thin and high to the west with low, heavy mists approaching from the east. A few raindrops began to fall during the second sighting.

We returned to the Kohua Ridge Trail the next day, armed with camera and telephoto lens, in hope of seeing the 'o'u again and getting a recognizable photograph

of it. This time we hiked about three miles out on the trail and then retraced our steps to the spot where we first saw the 'o'u. Neither our extended coverage of the trail nor our 1½-hour vigil at the original sighting site produced any sign of the 'o'u. We had to return to Honolulu that night, so our Alaka'i adventure stopped there.

Seeing the 'o'u was a rare treat, but what impressed us most during our visit to the Koke'e-Alaka'i area was the number and variety of endemic forest birds one can see there easily. At Koke'e, we expected to see exotic birds like the Chinese thrush, Japanese white-eye, American cardinal, ricebird, jungle fowl and others that were there in the cabin area, and we expected to see a few endemic forest birds among them. But we really weren't prepared to find five endemic species among the banana poka vines (Passiflora mollissima) that festooned the trees in back of our cabin and hung over the roof. And yet there they were, one morning as we stepped out of the cabin to go to the Alaka'i to find endemic forest birds: an 'apapane, 'i'iwi, 'anianiau, 'elepaio and 'amakihi, all in the space of a few minutes.

More surprising to us was our ease of access to areas of strong dominance by endemic bird-plant associations in the Alaka'i "Swamp" -- which is really a high, rolling plateau, dotted with bogs and penetrated by ridges and steep-sided stream valleys. The area around where the Pihea Trail joins the Alaka'i Swamp Trail is little more than a mile of fairly easy walking from where we parked our car at the beginning of either of these trails. We found the area alive with seven species of endemic forest birds, especially on the Pihea Trail, which is, however, suffering serious incursions by the exotic blackberry. The 'anianiau was abundant there, and the 'apapane, 'elepaio and 'i'iwi were constantly within sight or sound. The 'amakihi was not conspicuous, and we saw and heard only a few. Most surprising of all was the ease with which we could observe the Kauai creeper and the Kauai 'akepa there; we saw half a dozen or more of each within less than an hour on the Pihea Trail.

We have pondered with mixed emotions what we saw of the Alaka'i. What a rare opportunity to step back a thousand years and, with a little imagination, glimpse what one chunk of Hawaii really was like before man's hand touched the landscape! It also was an opportunity to see what Hawaii could be like if man learned to touch the land more lightly. In this age of "environmental concern" we are coming to see that our survival depends on preserving nature rather than changing it. In a very real way, we depend on nature as it is. Nature has in its infinite variety an infinite capacity for change, but man with his finite body has finite natural requirements for survival. If nature changes too much, man will become "rare and endangered" and then "extinct." It is ironic that our "deteriorating environment" is the direct result of man's own actions in changing that environment. In his ignorance and carelessness about his own long-range environmental requirements, man has destroyed too many reefs, marshes, forests and natural ecosystems. He has extinguished too many species in gaining his "dominion over the earth." He is, in effect, on a collision course with his own doom as a species. Will he continue on that course in his dominion over the Alaka'i and the 'o'u?

The signs are there. Man has touched the Alaka'i, and he has hurt it. But he touched it lightly, and the scars are healing, and it still survives nearly intact. Rotting utility poles through the bogs along the Alaka'i Swamp Trail show that man was there but went away. The red, raw gash along the ridge that separates the Kalalau Valley from the Alaka'i Swamp is a remnant of man's abortive attempt to build a roadway along the northern border of the Alaka'i for short-range economic gain of dubious merit, but it will heal if man doesn't re-open the wound. The last two miles of the Camp 10 Road are undergoing massive earth moving and permanent scarring of the slopes ostensibly to improve the road for the purpose of maintaining a newly constructed ditch to carry irrigation water from the Alaka'i drainage to cane fields in the dry, leeward lowlands of Kauai. If the road goes no farther than its present terminus at the Mohihi Gauging Station, and if it doesn't open up "development" of some sort in the area, the Alaka'i should suffer no great harm; but those are big "ifs."

Other signs of man's touch is the Alaka'i are his biological introductions --

changing (and destroying) nature with nature, as it were. The banana poka smothering the 'ohi'a trees behind our cabin at Koke'e and the blackberry thickets creeping eastward through the Pihea Trail area are the products of man's ignorance and carelessness in introducing vigorous foreign plants against which the native biota have no effective defense: they have within them the seeds of destruction to much of the endemic biota of the northern Alaka'i. We cheered a hunter we met on the Kohua Ridge Trail with a goat slung over his shoulders and a smile on his face; and we mourned the uprooted hapu'u (tree ferns) we found in the bog three miles out on the Alaka'i Swamp Trail with their hearts eaten out and their corpses surrounded by pig tracks. Rooting, grazing, trampling feral mammals introduced to these islands by man and free from natural control by natural predators are eating their way through the endemic flora of the Alaka'i and gradually changing its character. They must be hunted vigorously by man, their only predator, if the native ecosystems of the Alaka'i are to survive.

And what about exotic birds, brought to Hawaii by man? How do they relate to the Alaka'i? We saw lots of exotic birds in the Koke'e area, where man and his works are conspicuous, but few in the Alaka'i, where man and his works are not so apparent. In the Alaka'i, we saw white-eyes mostly around the blackberry thickets on the Pihea Trail. On all the forest trails, we saw lace-necked doves attracted to those artificial openings in the natural vegetation, and ricebirds feeding on the seedheads of exotic grasses that had invaded these openings made by man. Throughout Hawaii, these three hardy foreign bird species are closely associated with man and become less abundant or absent in undisturbed areas, although the white-eye is said to have invaded all forest habitats at all elevations, at least in small numbers. Certainly the dove and the ricebird and to some extent the omnivorous white-eye must be factors in the spread of seeds of exotic plants into the Alaka'i. And certainly the white-eye is a vigorous, noisy competitor to the insect-and-nectar-eating native forest birds for food and territory. There is also the possibility that the introduced bird species are carriers of bird diseases to which endemic forest birds have little or no resistance.

Although man is responsible for them, he knows next to nothing about the processes and consequences of these exotic-endemic bird associations in the Alaka'i. In fact, he has only superficial and generalized insight into the potential consequences of all his biological introductions and physical incursions into the Alaka'i. He knows little about the biological and physical requirements and limitations of the Alaka'i's various native ecosystems, or even of the individual plant and animal species that are organic to those ecosystems. The breeding biology of the 'o'u and the other rare birds of the Alaka'i, for example, is virtually a blank in man's knowledge, and even the commoner endemic birds there are hardly better known or understood. Doubtless there are plant and insect species in the Alaka'i that man has not yet even discovered.

In our wisdom, we must recognize our ignorance about the Alaka'i and what it has to offer. What are the life processes to which the Alaka'i wilderness owes its survival in such uniquely intact form, and could our better knowledge and understanding of those processes contribute to our own quality of life and survival? Shouldn't we try harder to preserve that wonderful biological community and learn more about how it works? The Alaka'i, it seems, has much to teach us about our environment and about ourselves, but we can't teach it anything. We can only appreciate it or destroy it.

FAR-FLUNG REACHES OF HAWAII!

The sight record of the RUFF at Kanaha Pond by Mr. Alan Baldrige on September 3, 1971 (THE ELEPAIO, Vol. 32, No. 4, October 1971, pages 39-40) apparently is not the first record of that bird in Hawaii. Clapp and Woodward* report a specimen record of the RUFF that was collected on Green Island, Kure Atoll, on December 11, 1963. Kure Atoll, west of Midway Island and over a thousand miles northwest of Kauai, is owned by the State of Hawaii and is under the jurisdiction of the

Division of Fish and Game.

* Clapp, R.B. and P.W. Woodward. 1968. "New records of birds from the Hawaiian Leeward Islands," Proceedings of the U.S. National Museum, Vol. 124, No. 3640, p. 24.

Mae E. Mull

Field Notes from Charles G. Kaigler:

27 October 1971, Kanaha Pond, Maui. Hilde and I can also report a sighting of what must be the ruff at Kanaha Pond, in fact two of them. The pair flew into the mud flats adjacent to the observation booth off the highway just before dusk. Our observations were with a 30x scope at about 35 yards. Similar to the lesser yellowlegs, but much browner. Erect posture, dull yellow legs and white on rump. The lack of barring on the breast, belly and flanks was quite noticeable. We also counted one peep (sandpiper) - western or semipalmated, one dowitcher, one dunlin, three semipalmated plovers, five pectoral sandpipers, one black-bellied plover, 27 sanderling, 25 ruddy turnstones, about the same number of golden plovers, five black-crowned night heron, 112+ coot, 173+ stilt and 257+ shovelers, only two pintail, and a ring-billed gull.

2 November 1971. One Bonaparte gull at Kahuku.

+++++

Field Notes from Dory Smith, 27 October 1971: Black-headed Conure

I would like to report sighting a Black-headed conure yesterday morning, October 26th, about 7:15 A.M. in front of our quarters in the Makalapa Navy housing area, Pearl Harbor. It flew into a tree top, joining a number of Brazilian cardinals, and repeated its call (which I heard as "Queek") about every ten seconds until it flew off four or five minutes later, pursued by an unfriendly cardinal. It was bright green in color and flew in swift graceful zigzags like a Mourning dove. Its general silhouette somewhat resembled a Mourning dove, being about that size, slender with a long-pointed tail.

May I add a note about the Red-vented bulbul which seems to be increasing in the Makalapa area--we see them daily now; also at Navy Marine Golf course, and I have seen one on the Submarine Base as well.

Charles G. Kaigler's letters to Dr. Marvin T. Miura, Office of Environmental Quality Control, State Capitol Building:

On the draft environmental impact statement on the establishment of an Energy Corridor on Oahu, Job No. H.C. 1084, 18 October 1971

The primary concern of the Hawaii Audubon Society is with the possible ecological impact of the construction and operation of the corridor along the tidal mud flats at the upper end of West Loch near the mouth of Waikele Stream. We consider the environmental impact portion of the statement where reference is made to the wildlife of the area to be too weak, too hastily written and not carefully or deeply researched. It should be much more forceful. The statement does indicate awareness (pp. 16-18) that this area is the most important habitat for wildlife adjacent to the Energy Corridor. Some 300 to 500 Hawaiian Stilt (Ae'o), an endangered species, do consistently use this area for feeding and perhaps breeding, as do more than 50 Hawaiian Coot ('Alae ke'oke'o) and an extremely large number of migratory shore birds and ducks as well as the Black-crowned Night Heron ('Auku'u). We wish to add that the marsh area of some 35 acres at the northeast corner of West Loch including the remnant of Pouhala Pond located between the Waipahu dump and a housing area once provided excellent habitat for waterbirds and could again if the area were preserved and developed as a sancturay. While we do not know the future plans for this area, the same considerations in construction and operation should apply as the area is contiguous with the West Loch feeding grounds and just as important to the preservation of wildlife.

We certainly agree that the same considerations for the prevention of silting during construction, and the prevention of leakage during operation that the statement emphasizes in the West Loch area should also apply to Middle Loch. Let us assure you that the Hawaiian Gallinule ('Alae ula) is (not "believed to be" - p. 18) on the endangered species list as the researcher could learn by consulting "Hawaii's Endangered Waterbirds" published jointly by the Bureau of Sport Fisheries and Wildlife of the U.S. Department of Interior and the Division of Fish and Game of the Hawaii Department of Land and Natural Resources. One can also learn the proper spelling of the names of the birds, both English and Hawaiian, from the same source or any other standard reference such as "Hawaii's Birds" published by our Society.

While we do appreciate the concern with wildlife protection in this statement we do also recommend that the final statement make use of reference materials readily available in order to more correctly state the situation, that the biological references be listed in the bibliography, that the importance of this area in the maintenance of suitable natural habitat for our vanishing endangered wildlife be even more strongly emphasized, and the emphasis be carried over as well in the planning of both the construction phase and operational phase of this project in order to eliminate any possibility of damage or pollution in this very important ecosystem.

=====
On draft environmental statement, Farrington Highway, Kaena Point Section,
Project No. 930-01-69, 930B-01-69, 20 October 1971

The dune area at Kaena Point is not only an important natural landmark on the island of Oahu, but is also an important coastline ecosystem, the habitat of a number of rare and endangered coastal plants. At least 14 of the 43 species of plants found at this site are native island species, both indigenous and endemic, found in only a few areas on Oahu. The Hawaii Natural Area Reserves System Commission has completed a study of Kaena Point and either has already or will recommend that this area be set aside and protected from any usage that would further damage a unique natural area. The damage to date from jeep and motorcycle joyriding is already apparent. The report by the Commission should be readily available to the highway planners and we strongly recommend that the content of this report be studied, that it be recognized in the final impact statement, and that full protection of the area between the old railroad-bed and the sea at Kaena Point be an absolute requirement throughout the period of highway construction.

Excerpts from the minutes of the Hawaii Audubon Society general meeting, 16 August 1971:

...Mr. Kaigler commented on the Society's exhibit at the August 14-15 "Celebration of Life" at Thomas Square, sponsored by the Department of Parks and Recreation, City and County of Honolulu and Life of the Land. He expressed his appreciation to all members who helped prepare and staff the exhibit.

Mr. Kaigler called on Vice President William Mull to report on Society activities during the previous month. Mr. Mull spoke on these items:

(1) 25 members and spouses took part in the August 8 field trip to Manana Island. Robert Shallenberger led the trip and arranged for a boat from the Oceanic Institute. Because the sea was unusually calm and the weather clear, passengers were able to have an around-the-island boat tour. The group made observations of all the breeding seabird species from the beach and rocky shore area and did not enter the breeding colony territory on higher ground. Since the Society is seeking better protection of the breeding colonies, it must be scrupulous in not disturbing the seabirds that it wants to protect. Sooty terns, noddy terns, wedge-tailed shearwaters, Bulwer petrels, frigatebirds and red-tailed tropicbirds were observed....

(2) Among the many replies received to the Society's critique of the State Department of Transportation's environmental impact statement on construction of H-3 through Moanalua Valley, are several from federal officials with the assurances that all environmental effects of the highway will be studied.

(3) The Society submitted a statement to the Board of Land and Natural Resources opposing the application for a commercial use permit for Alokoko (Menehune) Pond, Kauai. The Land Board denied the application in light of the U.S. Bureau of Sport Fisheries and Wildlife plan to acquire the pond as a sanctuary for endangered waterbirds....

(4) Mr. Mull represented the Society at the invitation of Admiral T.B. Hayward, Commandant, Fourteenth Naval District, to meet with his staff to discuss waterbird sanctuaries in the Pearl Harbor area. Setting aside sanctuaries there is part of the overall U.S. Navy program to have Pearl Harbor conform to the Federal Water Quality Standards Act. Areas discussed include Walker's Bay, the upper end of West Loch, and the salt evaporation ponds on the ewa side of West Loch. Some of these areas may also serve at mitigation for the loss of the Keehi Lagoon mudflats when the reef runway is built.

(5) The Society submitted a statement to the Board of Land and Natural Resources opposing the application for a commercial use permit for the harvesting of hapu'u (tree fern) in the Kilauea Forest Reserve, Island of Hawaii because of the degradation to the total ecosystem of that endemic forest that would result. The 3,000 acres involved is zoned Conservation District.

(6) The Executive Board voted to support the Hawaiian Botanical Society's resolution calling for the elimination of feral goats in both of Hawaii's national parks. Bill Mull will work on a position paper that urges Hawaii's Congressional delegation and the National Park Service to eradicate the goats, in keeping with Park policy to protect native wildlife and vegetation from damage by introduced species.

Mr. Kaigler commented on the three areas recommended for inclusion in the Natural Area Reserves System by the Commission: on the Big Island, 2,600 acres of the Puu Makaala rain forest, which is a prime example of 'ohi'a-hapu'u forest, and a square mile of the 1942 lava flow and adjacent forest--both on the eastern slope of Mauna Loa; and on Maui, the coral reef habitat at Ahiahi Bay near Makena. The State Board of Land and Natural Resources will hold public hearings eventually on these proposed natural areas.

On display at the meeting were new permanent posters prepared for the Thomas Square ecology exhibit. Using photographs from Hawaii's Birds were three posters titled: NATIVE BIRDS -- HAWAII ONLY (endangered endemic species were outlined in red tape), NATIVE BIRDS -- HAWAII AND ELSEWHERE (mainly migratory shorebirds, migratory ducks and seabirds) and FOREIGN BIRDS -- BROUGHT TO HAWAII BY MAN. In another poster, EXTINCT HAWAIIAN BIRDS, separate white gravestones on a black background named the 23 endemic species that have become extinct in the last 150 years.

Mr. Kaigler introduced Dr. Irwin Lane, Administrative Director for the Department of Parks and Recreation for the City and County of Honolulu. Dr. Lane spoke of the new emphasis on ecology in planning for future Oahu parks and recreation areas. "Amelioration of the environment" for man through conservation and preservation of open space has primary consideration. The trend is to leave natural park areas in a natural wild state, as "ecological niches" for birds and plants. Planning is underway for the 150 acre regional park at Kualoa, at the north end of Kaneohe Bay. The five-acre pond in back of the beach, which is a feeding and resting area for Hawaiian stilts, other waterbirds and shorebirds, will be protected as a refuge by a buffer zone of dense vegetation. Mokolii Island ("Chinaman's Hat") is part of Kualoa Park and will need to have access restricted to protect the plant life and the nesting grounds of the white-tailed tropicbird, Bulwer petrel and wedge-tailed shearwater. Kawainui Swamp, in the past a major habitat for large numbers of waterbirds, is still under the jurisdiction of the Parks Department, but the extensive park of waterways, recreation areas and bird refuge islands that was proposed several years ago is not being considered in the current parks planning. A land fill experiment for compacted solid waste is underway on 6-7 acres of the Swamp with no evidence thus far of leaching or contamination.

HAWAII'S BIRDS, a field guide for \$2.00, is an excellent gift for mailing to friends. Send in your orders to: Book Order Committee, Hawaii Audubon Society, PO Box 5032, Honolulu, Hawaii 96814.

ALOHA to new members:

Nelson Hall, 5400 North Mueller St., Bethany, Oklahoma 73008

Army & Air Force Exchange Service, HQ Pac Ex Sys, 919 Ala Moana, Honolulu 96814

In Memoriam

We extend our deepest sympathy to the families of Mrs. Frank Gerbode, a life member from California, who died 19 October 1971 and Miss Harriet E. Linn, a long-time member, who died 6 November 1971. Mrs. Gerbode was very much interested in the Society's work and had offered the use of her Papaa Ranch on Kauai.

1971 Christmas Bird Count

The Honolulu Christmas bird count is scheduled for Sunday, 26 December 1971. The count is conducted within a circle 15 miles in diameter, centered close to Nuuanu Pali. This same area has been covered each year since 1954. General coordinator will be William P. Mull, with groups assigned to territories as follows:

Group A: Kaelepulu Pond, Kawainui Swamp, Kailua residential area, and Kaneohe Marine Corps Air Station

Group B: Aiea Trail

Group C: Keehi Lagoon, Salt Lake and Nuuanu Valley

Group D: Punchbowl and Tantalus

Group E: Manoa Valley, Manoa Falls Trail, and downtown Honolulu

Group F: Kapiolani Park, Zoo, and Ewa side of Diamond Head

Group G: Diamond Head Crater (inside) to Paiko Lagoon and Kuapa Pond including the residential area

All members and guests are welcome to participate in the count. Please call William Mull, 988-6798, to arrange meeting place and time.

Full details and discussion of count plans will be given at the annual meeting on 13 December.

The Nominating Committee, Margaret Titcomb (Chairman), Unoyo Kojima, Robert Shallenberger, and Roxanne Sullivan, suggests the following persons as officers of the Society for 1972: President-Charles Kaigler, Vice Presidents-William P. Mull & David Woodside, Secretary-Mrs. Mae E. Mull, Treasurer-Christine Jones, and Board members-Wayne Gagne & Robert Shallenberger.

Election of officers will be held at the annual meeting, 13 December, at which time further nominations will be accepted from the floor.

Reprint permission is granted if credited as follows: from THE ELEPAIO, Journal of the Hawaii Audubon Society.

DECEMBER ACTIVITIES:

13 December - PLEASE NOTE DATE. Annual meeting at the Waikiki Aquarium Auditorium at 7:30 p.m. Program for the night: (1) Elect officers (2) Work out details of the Christmas bird count.

26 December - Christmas bird count

HAWAII AUDUBON SOCIETY EXECUTIVE BOARD:

President-LtCol Charles G. Kaigler, Vice-Pres.-William P. Mull & David Woodside
Secretary-Mrs. Mae E. Mull, Treasurer-William W. Prange, Jr.

Board Members-Miss Margaret Titcomb & Miss Christine Jones

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

HAWAII AUDUBON SOCIETY MEMBERSHIP LIST

Honorary Life

E.H. Bryan, Jr. - Honolulu, Hawaii
 Charles M. Dunn - Honolulu, Hawaii
 Grenville Hatch - La Jolla, California
 Thomas R.L. McGuire - Honolulu, Hawaii

W. Michael Ord - Agana, Guam
 Mrs. Harold R. Pedley - Carmel, Calif.
 Margaret Titcomb - Honolulu, Hawaii

Life

Dr. Paul H. Baldwin-Colo
 Mrs. Brooke Clyde-Calif
 Mr.&Mrs. Sam A. Cooke-Hon
 Miriam N. Davis-Molokai
 Frances C. DeGear-Calif
 Mrs. Whitney H. Eastman-Minn
 Mrs. Melvin Gallagher-Kauai
 Thelma Hensley-Oahu
 Dr. Alden D. Hinckley-Va

Charlotta Hoskins-Hon
 Edgar Kincaid-Texas
 Warren B. King-Va
 Mrs. Mitsuko Kirito-Kauai
 J. de N. Macomb, Jr.-Ill
 Dr. Norman H. Meller-Calif
 Mr.&Mrs. William P. Mull-Hon
 Mrs. George C. Munro-NZ
 J. d'Arcy Northwood-NJ

Noah K. Pekelo, Jr.-Molokai
 Mrs. John C. Plews-Hon
 Mrs. C. Dudley Pratt-Hon
 Mrs. Herbert M. Richards-Hon
 Chandler S. Robbins-Md
 Gordon B. Ruser-Calif
 Mrs. Sue W. Thomas-Hon
 John T. Waterhouse-Hon
 David H. Woodside-Oahu
 HSPA Experiment Station-Hon

Junior

Gregory Cone-Hon
 Daniel Dinell-Hon
 Tracey Griner-Mich

Daniel & Ned Margulies-Hon
 Barbara Mull-Hon
 Carolyn Phillips-Calif

Brian Reed-Oahu
 David Taira-Hon
 Althea Toma-Hon
 Jonathan Worth-Hon

Regular-Honolulu

Dr. Walter J. Arnell
 Edward Arrigoni
 Janet E. Bell
 Francis L.P. Benevides, Jr.
 Shirley D. Bennett
 Dr. Andrew J. Berger
 Mrs. Barbara K. Bird
 Earl Bishop
 Mrs. Jesse E. Blackwell
 Mrs. Gerald L. Bolton
 Irma Botsford
 Mrs. Alice S. Bowen
 Frank Bragg
 William Y. Brown
 Mrs. O.J. Burnett
 Dr. Elizabeth B. Carr
 Alys J. Chong
 Mrs. Virginia Cone
 Dr. & Mrs. John W. Cooper
 Jerry Corn
 Mr.&Mrs. William L. Cromley
 Mrs. Helen Delaney
 Mrs. Helen D. Devereux
 Mrs. Constance Dinell
 Laura A. Draper
 Susumu Fujii
 Wayne Gagne
 Robert W. Gardner
 Mr.&Mrs. John W. Gilje
 Mrs. Howard Gottschalk
 Ray Greenfield
 Mrs. Phyllis M. Gummerson

Joy C. Harwood
 C. Florence Hendrycy
 Derral Herbst
 Mrs. Rosalind Herron
 G.A. Hicks
 Mr.&Mrs. Ernest G. Holt
 Mr.&Mrs. Thomas J. Horgan
 Aileen M. Ichijo
 Christine Jones
 Mrs. Margaret H. Kai
 Lt Col & Mrs. Charles G. Kaigler
 Neil Kawasaki
 Maurice V. King, Jr.
 Bill Kloos
 Unoyo Kojima
 Noel L.H. Krauss
 Alphonse Labrecque
 Harriet Leialoha
 Alex L. MacGregor
 Mr.&Mrs. Milton Hanhoff
 Mrs. Francine K. Margulies
 Mrs. A.O. Marrack
 Brian McKnight
 Dr. John C. Milnor
 Steven Montgomery
 Marjorie Morris
 Mrs. Clara L. Morse
 Hector C. Munro
 Dr. & Mrs. William A. Myers
 Mrs. Walter K. Nakanishi
 Jane Sanders Nevin

Roger E. O'Connor
 S.D. O'Harrow
 Dr. Gary J. Parker
 John D.M. Parkes
 Hazel Peppin
 Lt Gen Oliver S. Picher
 Charles J. Pietsch
 Thane K. Pratt
 J. David Raney
 S. Arthur Reed
 Gene Renard
 Mr.&Mrs. Max H. Rhyne
 Mrs. Mary E. Riggs
 Mrs. Mary Roberts
 W.W. Robinson
 Mrs. Ruth R. Rockafellow
 Mrs. Martha R. Scruton
 Kathleen See
 Miriam E. Sinclair
 Mrs. Thelma Warner Smith
 Capt. & Mrs. L.S. Smith, Jr.
 Margaret L. Smith
 Walter R. Steiger
 Roy R. Stone
 Roxanne Sullivan
 Eleanor Westendorf
 Harry Whitten
 Charles W. Whittle
 Dr. G. Causey Whittow
 Mrs. Phyllis A. Wilkerson
 Glenn T. Yamashita
 Henry Yuen

Regular - Rural Oahu

John J. Allen-Aiea	Marvin K. Devereux-Kaneohe	Kenneth R. Salisbury, Sr.-Ewa
Mrs. Dorothy F. Babineau-Kailua	Louis M. Drake-Kaneohe	Hiroshi Tagami-Kaneohe
Mrs. Mabel R. Becker-Kailua	Mrs. William G. Gorst-Kailua	John Trenhaile-Waipahu
Dr. Delwyn G. Berrett-Laie	Mrs. William C. Hodge-Kailua	George E. Vickery-Kailua
Mrs. Carol Boe-Kaneohe	Mr. & Mrs. Don Huddleston-Kailua	William H. Vickery-Kailua
Mrs. H. A. des. Canavarro-Kaneohe	Eugene Kridler-Kailua	Ronald L. Walker-Kaneohe
Mrs. Nancy A. Conklin-Kailua	Mrs. Anne Powlison-Kailua	Linda Welthausen-Ewa
Mrs. H. C. Cunningham-Aiea	William W. Prange, Jr.-Kaneohe	Paul Yent-Kailua

Regular-Other Islands

Mrs. Louis W. Aidem-Molokai	Barbara H. Davis-Kauai	Dr. & Mrs. David R. Sears-Kauai
Mrs. Robert I. Baldwin-Hawaii	Mrs. W. L. Doty, Jr.-Hawaii	Mrs. Dorothy Thompson-Hawaii
Dr. Roger E. Baldwin-Hawaii	Mrs. Violet Hansen-Hawaii	Dr. P. Quentin Tomich-Hawaii
Winston E. Banko-Hawaii	Mary Musgrove-Hawaii	Alan S. Tyler-Hawaii
Myrna Campbell-Kauai	Mrs. Patricia C. Peacock-Haw	Charles VanRiper, III-Hawaii
Mrs. E. C. Cluff, Jr.-Kauai	Mr. & Mrs. George A. Schattauer-Hawaii	

Regular-Out of State

Dr. Dean Amadon-NY	CDR J. Richard Gauthey-VA	Dr. & Mrs. Robert L. Pyle-Md
Dr. Alfred H. Bailey-Colo	Dr. Irene E. Greenhut-Calif	Hannah T. Richards-Colo
Fremont O. Ballou-Calif	Mr. & Mrs. Virgil L. Griner-Mich	Dr. Frank Richardson-Wash
Walter E. Benning-NY	Nelson Hall-Okla	William S. Robinson-Oregon
Fred P. Bosselman-Ill	Philip K. Hathaway-Mass	Rose R. Roher-Fla
Roger B. Clapp-Va	M. E. Herz-Minn	Mrs. Donald P. Russell-NH
Sheila Conant-Okla	Mrs. George Homen-Calif	Euphie G. M. Shields-Calif
Dr. Robert H. Cooper-Ind	Karl W. Kenyon-Wash	Joseph H. Siphron-NY
Paul F. Covel-Calif	Joseph E. King-Ga	Mrs. Nina Dean Steffee-Fla
Orville Crowder-W. Va	George Laycock-Ohio	Helen M. Stooddy-Wash
Kenneth L. Cuthbert-Calif	Dr. Alfred J. Marston-NY	Mrs. Clyde K. Stroburb-Calif
Salon D'Andree-Mass	Mrs. David J. Martin-Canada	John W. Swanstrom, Jr.-Ill
William P. Dunbar-Calif	Mrs. Ethel M. Matheson-Wash, DC	Lawrence J. Taylor-Neb
Elizabeth Dyer-Del	H. R. McKenzie-New Zealand	Mrs. S. F. Thomas-Calif
William J. Edgar-Mich	Mrs. Joseph E. McNett-NY	Dr. Miklos D. F. Udvardy-Calif
Dr. William H. Elder-Mo	George T. Morrison-Wy	G. Bernard Van Cleve-Pa
Jane G. Eliason-NJ	E. W. Mudge, Jr.-Texas	Mrs. Owen H. Wangensteen-Minn
Dr. R. A. Falla-New Zealand	Linda May Mull-Calif	Mrs. Joseph B. Ward-NY
Dr. F. R. Fosberg-Wash, DC	Mr. & Mrs. C. Turner Nearing-Ill	Wilfred W. Weddendorf-Calif
Mrs. Bertrand Fox-Mass	Gard Otis-Mich	Mrs. Ann E. Wissler-Utah
Dr. & Mrs. Hubert Frings-Okla	Dr. Roger T. Peterson-Conn	James R. Wolf-Pa
Mrs. Kenneth D. Gardner-Calif	Roy T. Puckey-NJ	Mrs. B. Theodore Zartman-Pa

Institutions

Amer Mus of Nat Hist-NY	Hickam Base Lib-Oahu	Nat Audubon Soc-NY
Army & AF Exchange Sv-Hon	Hon Advertiser-Hon	Oceanic Inst Lib-Oahu
Aud Nat Soc-Wash, DC	Honolulu Zoo-Hon	Palama Settlement-Hon
Bishop Museum-Hon	HSPA Exp Sta-Hon(LIFE)	Patuxent Wildlife Res Cen-Md
British Museum-Eng	Kailua Library-Oahu	Peabody Museum-Conn
City of Ref Nat Hist Park-Haw	Kamehameha Schools-Hon	Pa State Univ-Pa
Coll of Wm & Mary-Va	Kauai Pub Lib, Hanapepe	Plant Industry Adm-Hon
Colo State Univ-Colo	Kapaa	Point Reyes Bird Ob-Calif
Dept of Planning-Hilo, Haw	Waimea	Simon Fraser Univ Lib-Canada
Div of Fish & Game-Hon	Kauai Pub Lib Assn, Ltd	Smithsonian Inst-Wash, DC
Ft Shafter Lib-Hon	Des Mammiferes-France	Univ of Calif-Berkeley
Haleakala Nat Park-Maui	Leeward Community Coll-Oahu	Los Angeles
Hanahauoli Sch Lib-Hon	Lyman K. Stuart Observ-NY	Univ of Guam
Harvard Univ-Mass	Maui Pub Lib, Wailuku	Univ of Hawaii
Haw Public Lib-Haw	Kahului	Univ of Kansas
Haw Nat Hist Assn-Haw	Lahaina	Univ of Michigan
Haw Prep Academy-Haw	Makawao	Univ of Victoria-Canada
Haw State Lib-Hon	McCully-Moiliili Lib-Hon	Waikiki Aquarium-Hon
" Kaimuki Br	Molokai Pub Lib	Waikiki Beach Press-Hon
" Kapahulu Br		