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ENDANGERED MAUNA KEA BIRD

By Harry Whitten

HONOLULU STAR-BULLETIN, 13 July 1974, Page A-11

The Palila, which is about the size of a sparrow, is a native Hawaiian honeycreeper whose entire world's range is restricted to the native mamane-naio forest on the slopes of the Big Island's Mauna Kea.

As might be expected, it is an endangered species, one of 27 Hawaiian birds on the U.S. List of Endangered Species. The Hawaiian birds comprise more than half of those on the list; 24 species of Hawaiian birds have become extinct in the last 150 years.

The threats to the palila populations were discussed at a meeting this week of the Animal Species Advisory Commission. Tied into the discussion were such matters as feral cats and feral sheep and whether hunting should be opened up or continued closed in Unit A of the Mauna Kea Game Management Area.

In what might be regarded as contradictory positions, the scientists favored hunting while the State Fish and Game Division, on advice of hunters, had suspended hunting of feral sheep, pigs and goats in Unit A last October 13. Hunting of feral sheep is permitted in Units E and F, which are lower on the mountain and easier for hunters to reach.

Unit A, higher on the mountain, is the area of most critical concern because here the sheep cause most damage to the mamane, which grows in open, park-like forests. Mamane is a legume, the young plants of which sheep find delicious. The tree-line ends at about 9,300 feet, and sheep have been rapidly destroying the forest at the higher elevations.

The palila is largely dependent on mamane forest for its habitat and food supply, although it eats some other seeds and some insects.

Charles van Riper III, who has lived in a tent on Mauna Kea since January, described to the commission his observations on the palila and the destruction of the mamane forest, a destruction noted for at least 14 years. Van Riper...has studied the Mauna Kea ecosystem for five years and for the last two years has been working at the University of Hawaii... His Mauna Kea study, to take another year, is for his Ph.D. thesis.

Van Riper said the palila's decline, which has occurred despite favorable climatic factors this year, seems due to a combination of factors, such as loss of habitat, disease and predation. The chief predator is the feral cat, descendant of household pets which have gone wild. Van Riper set traps for cats, rats and mongooses and analyzed the stomach contents. Rats do not live at higher elevations,...but cats do, and he found many birds in the cats' stomachs. Van Riper said that the mamane is regenerating at lower elevations but is doing very poorly at higher elevations.

The Palila's plight is not hopeless, Van Riper thinks, but if action is not taken soon, there won't be enough of the bird left to sustain reproduction. The palila only lays two eggs in a clutch. The palila used to live also in the Hamakua, Hilo and Kona areas but has disappeared from all but Mauna Kea. It is a bird with yellow head and breast, gray back and grayish-white abdomen. It has a powerful bill with which it cracks mamane seeds.

Van Riper is also studying on the Mauna Kea slopes the 'amakihi, fairly abundant, and the 'akiapola'au, also rare and local in range.

Sheep gather in herds, which damage plants in arid, mountainous regions more than if they were in small numbers. One control measure under consideration by the Fish and Game

Division is that of allowing hunting once a month, which would make sheep nervous and scatter them more than a concentrated season that leaves sheep free of worry the rest of the year. Alan C. Ziegler, vertebrate zoologist member of the commission, introduced a resolution in favor of pening the regular hunting season in Mauna Kea's Unit A but the resolution was tabled until a field trip is taken later this month to inspect the mamane forest. Ziegler said there has been no sign of mamane regeneration since the hunting season was closed. He argued that sheep population can be restored much faster than soil and forest and pointed to the sheep population of 500 in 1952, which had doubled one year later.

Ronald Walker, Wildlife Branch chief, said the sheep population in Unit A is now estimated at about 1,200. The Fish and Game Division had planned to open the area to

hunting when the population reaches 1,500.

Donald Reeser, Big Island advisory commission chairman, said the population of 1,500 sheep is too many and that the question is how to sustain the mamane forest and palila and also retain hunting. He suggested that federal funds might be obtained under the Endangered Species Act to fence off part of Unit A for palila habitat and manage the rest of it on a sustained hunting basis.

The commission adopted a resolution submitted by Ziegler asking the Fish and Game Division to submit to the Secretary of the Interior a proposal for a State-federal a greement to protect the palila, with a request for federal funding under the Endangered Species Act.

HONOLULU STAR-BULLETIN, 30 August 1974, page D-10: Birds Plus Sheep Are No Game by Dave Shapiro, Big Island Bureau Chief

Hilo-The environmental protection of Mauna Kea has become an issue of deep concern on the Big Island and throughout the State. Most public discussion in recent months has involved the summit of the 13,796-foot mountain, where the University of Hawaii and several foreign astronomy groups are planning large-scale observatory developments. But many conservationists are even more concerned about middle slopes of the mammoth mountain.

Source of the controversy is the decline of the 30,000-acre Mamane-Naio forest that circles the mountain between 6,000 and 9,500 feet elevation. Many fear that the native forest, unique in Hawaii and the world, is being destroyed by the wild sheep that graze on Mauna Kea's slopes. Also at stake is the survival of the Palila, a native Hawaiian honeycreeper that is included in the federal register of endangered bird species. The Palila, which is found only in Mauna Kea's Mamane forest, will almost certainly become extinct if the forest continues to decline. The State and interested private groups have attempted to come to grips with the problem for years. A major obstacle has been the differing objectives of the various groups interested in the future of Mauna Kea. Some hard-line conservationists want the sheep population reduced drastically or eradicated entirely so the Mamane forest can regenerate and return to its original native state. This arouses the ire of hunters who have pursued sheep for sport and food for decades. Somewhere in the middle are those--both conservationists and hunters--who want to bring the sheep population to a reasonable balance where it will provide ample bounty for hunters, yet not significantly threaten the Mamane forest. This has been the policy followed by the State's Fish and Game Division, which is responsible for managing the forest area.

Sheep were introduced to the Hawaiian Islands in the 19th Century by visiting seamen. Before World War II, the population on Mauna Kea was estimated at a staggering 40,000 animals. Game management practices and heavy hunting in postwar years have reduced the population to only 1,200 by the latest count. Fish and Game officials have cut off hunting until the population returns to 1,500 which is now considered the optimum by the State agency. This has angered conservation groups who can't see any sense in letting the sheep population build up further. One of the most outspoken critics of State policy is Alan C. Ziegler.... He complained recently that the sheep and other exotic animals on Mauna Kea "are maintained with the sole purpose of providing maximum numbers of game for the two per cent or less of Hawaii's population who hunt. Which is to have priority in the operations of our State Fish and Game Division, the continued maintenance of high numbers of introduced game animals or the preservation of native Hawaiian species of plants and animals?" Ziegler asked. "Not only is...the Palila being annihilated, but the forest, the entire watershed and even the sheep themselves must necessarily be lost if the Division does not finally decide to begin to control the numbers of these game animals. To us, this particular type of native ecosystem destruction is not only a State disgrace...but a national disgrace as well, because federally administered Pittman-Robertson wildlife restoration

funds are granted each year to continue to maintain this herd of feral wild sheep in exactly this same senseless manner."

For their part, Fish and Game officials feel they are doing all they can to find a reasonable solution to the problem. At the urging of the State's Animal Species Advisory Commission, of which Ziegler is a member, Fish and Game is now seeking federal funds for a program to save the Palila. If the State qualifies for funds under the Endangered Species Act of 1973, the federal government would pay for two-thirds of the program. If the program gets underway, it will likely involve fencing off a section of the mountain as a Palila sanctuary, free of sheep. This is one of the approaches favored by Charles van Riper III, who has camped on Mauna Kea since January to make the first exhaustive study of the Palila and its habits. ... He said failure to act will mean extinction since there soon won't be enough Palila left to reproduce. ...

Ronald Walker, chief of Fish and Game's wildlife division, defends the decision to halt hunting until the sheep population return to 1,500. He said officials want to study that population for a few years to see if it can be the balancing point between ample sheep hunting and preservation of the forest. "Many people say there's no way to reach

such a balance, but that's what we're trying to find out," Walker said.

He said that, in many ways, the number of sheep are not so much a problem as their habits. He said sheep tend to congregate in large herds above the vegetation line and move downward to eat. As a result, the vegetation lines in areas inhabited by large numbers of sheep have continually crept downward. "When the sheep stay in large bunches like this, they can do a good deal of damage to the forest," Walker said. "If we could find a way to control the numbers and distribute them evenly all over the mountain the damage would be minimal. We've tried various ways to reach this kind of distribution, but nothing has worked so far."

Walker disputes the amount of damage to the forest claimed by some conservationists. "We don't dispute that some areas look pretty bad," he said. "But anyone making the trip around the mountain can see that other areas are lush as ever, with plenty of regeneration. The forest has come back a long way since the 1930s, when there were over 40,000 sheep up there. So you have to qualify any statement you make about the situation. I don't think you can make any broad statements that the entire forest is being destroyed. ..."

Letter to Dr. Elvis Stahr, President, National Audubón Society from President Wayne C. Gagne, 31 May 1974: ...I understand that you will be a speaker at the annual meeting of the International Association of Game, Fish and Conservation Commissioners (IAGFCC) to be held this September in Honolulu at which you will participate in a panel on "The 1973 Endangered Species Act: A Challenge in Federal/State Public Relations".

There are many instances in Hawaii of Federal/State mismanagement of our natural resources, our natural heritage. Among the most serious of these are those which are placing our endemic birds in continual jeopardy. We are especially concerned where endangered and threatened species are concerned; we have almost 50% of the birds on the Federal list. Please permit me to elaborate on one such case—the conflict in use of the mamane-naio forest on Mauna Kea, Hawaii Island, for the sport hunting of feral sheep.

The material /A Forest Dies on Mauna Kea by Richard E. Warner/ I've enclosed seeks to document the destruction of this forest. An endangered Hawaiian honeycreeper, the palila, is now found only in this forest. Its environment is being continually degraded by the sheep, the numbers of which are much above the carrying capacity of this ecosystem. The floral diversity has also been drastically reduced. Our State Fish and Game Division continues to ignore pleas of conservationists to reduce the numbers of sheep, and this in spite of three successive reports /1 July 1970 to 30 June 1973: Project Title--Statewide Pittman-Robertson Program; Project No. -- W-15-1, 2, & 3; Job Title--Composition, Distribution and Density of Feral Sheep, Pigs, and Goats in Units A, E, and F on the Island of Hawaii; Job No.--IV-A (18), (19), & (20). Excerpts--Unit A, the Mauna Kea Game Management Area, contains the largest feral sheep population on the island. The sheep have seriously disturbed the flora in this arid, mountainous area. Their habit of gathering in large herds, and their preference for mamane (Sophora chrysophylla) as browse has inhibited regeneration of this upland plant species over much of the range. Thus, the sheep not only endanger their own food source, but seriously threaten the continued existence of the Palila an endangered species which is dependent upon the mamane forest on Mauna Kea for its habitat and food source. The scope of this job was restricted to Unit A because

of the crucial wildlife management problems involved. Data for managing the feral sheep in this Unit is essential to the prevention of further deterioration of the habitat. from their own game biologist, Ernie Kosaka, that the sheep are destroying the habitat. In other words, the Division of Fish and Game is deliberately and knowingly letting this forest be destroyed with the eventual extinction of the palila, not to mention any of a number of species of plants. None of our native biota had ever previously been exposed to browsing mammals in their evolutionary history, so the calamity is predictable.

With this case in mind, strictly interpreted, Section 7 of the Endangered Species Act of 1973 could be used to curtail federal funds to our Division of Fish and Game should this and similar activities continue. ... If we see nothing other than a lowering of the number of sheep on Mauna Kea, we will have made a step in the right direction. Any help that you can give our beleagured native wildlife would be much appreciated. ...

PACTFIC DISCOVERY, March-April 1960: A Forest Dies on Mauna Kea, How Feral Sheep Are Destroying an Hawaiian Woodland by Richard E. Warner--Continued neglect of the present situation can have only one outcome: the ultimate and complete destruction of the habitat. When that occurs we all shall have lost--hunter and conservationist alike. The mountain will then no longer support either sheep or native plants or birds. Modern man will have produced, to his eternal shame and discredit, another biological desert.

Drepanidid Specimens at the Australian Museum by Rhys Walkley, 25 September 1974:

...I am a Victorian teacher interested in the Drepanididae since 1970 and recently became a life member of the Hawaii Audubon Society. This interest arose out of my studies concerning Hawaiian history over the last seven years. In early February 1972 I briefly visited the Australian Museum bird collection in Sydney, New South Wales, under the curatorship of Mr. H.J. Disney and found four specimens of Vestiaria coccinea all labelled before the First World War.

After taking their catalogue numbers I was determined to search through the extensive Pacific collections for other genera and in early September 1974 the opportunity arose again. Catalogue references to the miscellaneous birds, Pacific birds and generic name files were searched and part of files on purchases in the nineteenth century were checked.

Another drepanid came to light; a miscellaneous bird in the Solomon Islands collection. This arose with the cataloguer's confusion over the Sandwich Islands (Hawaii) and Sandwich Island (now Efate, the capital island of the Solomon Group). It is a specimen of the Hawaiian 'Akialoa (Hemignathus obscurus obscurus) labelled "Akialoa-native name" and "Hemignathus olivaceus" 021599 from "Mana" on "Hawaii". /Discrepancies between scientific and Hawaiian names. CHECK LIST AND SULHARY OF HAWAIIAN BIRDS by E.H. Bryan, Jr., page 22: 196-Hemignathus obscurus obscurus (Gmelin), (Cerithia obscura Gmelin, 1788); Hawaii 'Akialoa. Endemic Hawaii I. 203-Hemignathus wilsoni (Rothschild), (Heterorhynchus wilsoni Rothschild, 1893), (Hemignathus olivaceus Wilson, nec Lafresnaye, 1839); 'Akiapola'au. Endemic, Hawaii I./ It entered the reclassified collection in 1913 from the much older collection. The specimen (021599) seems to be an adult male stuffed in good condition.

Three of the four 'I'iwi were purchased in 1905 from a collection of Robert Grant (c. 1845-1923) whose larger collection of bird-skins was purchased by a syndicate and presented to the Australian Museum in 1926. His son, H.S. Grant, catalogued the 'I'iwi.

O31326--female from Hawaii labelled "Vistiaria coccinea" in a reasonable condition; catalogued 7 June 1905. O31327--female from Hawaii with a broken beak. This stuffed specimen is in good condition; catalogued 29 May 1905. O31328--male from the Island of Hawaii labelled "Vistiaris coccinea" corrected to Vestiaria.

The other Vestiaria is an immature male skin, unpadded, in poor condition labelled "Drepanis coccinea" and bought or exchanged from what may be a M. Bailleu connected with a Double du Museum classification. (I'm not familiar with the names M. Bailleu and Double du Museum on file cards.) /From pp 89-91 of Wilson & Evans, AVES HAWAIIENSIS, 1890:
"...M. Bailleu was an enthusiastic naturalist, and spent some months at Dr. Trousseau's mountain cottage in the district of Kona on Hawaii, engaged in forming a collection of birds which he forwarded to the Museum of the Jardin des Plantes..." The palila (Psittirostra bailleui (Oustalet)), which he discovered in the Kona district, was named in his honor. —Vayne Gagne/ It was relabelled in the Australian collection as A4249 and registered in February 1879. Both the Australian Museum in Sydney and the National Museum

in Melbourne were searched under all generic Drepanid synonyms with no result.

The National Museum has somewhere in its old collection a nene skeleton but no catalogued drepanid. "Coffins" containing nineteenth century specimens have awaited cataloguing for years and the curator, Mr. McAvey, indicated a strong possibility that among early Pacific specimens (such as the Drepanids) there may be an occasional honey-creeper skin, but exploration would have to wait.

No measurements of specimens were taken, or on record. Further research will be made into the larger collections in Australia with the hope that specimens are found.

NOT MAN APART, Vol. 4, No. 1, Feb. 1974, page 4: New Regulations Would Ban Importation of Exotic Animals, by Anne Wickham (c 1974 by Friends of the Earth. Reprinted by permission)

Two years ago a small group gathered at FOE /Friends of the Earth/ Wildlife Director Tom Garrett's request to discuss the drafting of a bill that would prohibit traffic in exotic animals. The FOE bill was drafted and pressure directed towards Congress and the Department of the Interior. Shortly, an agreement was reached: Friends of the Earth would advise the Department on the revision of its regulations under the Lacey Act. (The Lacey Act, enacted in 1900, empowers the Department of the Interior to adopt such measures as needed to "regulate the introduction of American or foreign birds or animals in localities where they had not heretofore existed.") Interior lawyers generally felt that if the Lacey Act provisions were revised, the revision could itself be used to bring about a ban on importation of exotic species found injurious to "human beings, agricultural interests, forests, or to wildlife resources."

On December 20, 1973, after being bombarded with threatening letters from exotic animal importers, pet shops, tropical fish enthusiasts, and exotic bird dealers, the Office of Endangered Species (OES) published the proposed regulations in the FEDERAL REGISTER. ...

The regulations, as proposed, would ban the import of all animal species not found to be "low risk." The low risk list has four species of birds: Rock dove or common pigeon, Zebra finch, Bengalese or society finch, and Canary. Five species of mammals are listed: Golden hamster, Jird (gerbil), Brown or Norway Rat (relax, only the laboratory strains), House mouse (again, laboratory strains), andGuinea pig. Two amphibians are okay: Bullfrog and Leopard frog. Three crustaceans made the list: American lobster, Atlantic spiny lobster, and Pacific spiny lobster. And, finally, two mollusks: American oyster and Soft shelled clam. ... No reptiles were listed. Hundreds of varieties of fresh water and most marine fishes can be imported.

With the exception of these low risk species, importation may take place only for educational, scientific, medical, or zoological purposes as designated on each permit. The Secretary of the Interior can grant permits—and we hope that he will keep issuance to a minimum. Assistant OES Chief Earl Baysinger, who was instrumental in forming these regulations, called them "the biggest step forward in some time, because they set up a framework for Federal-State cooperation and give the government a handle by which to control animal movements." ...

Department of the Interior News Release, 25 June 1974: Hearing Set on Importation of Injurious Wildlife—...The proposed regulations governing the importation of wildlife which are injurious to human beings, agriculture, horticulture, forestry, and native wildlife were first published in the Federal Register in December 1973. Availability of the draft environmental impact statement was announced in the Federal Register on June 5, 1974. The proposal would prohibit the import of injurious wildlife except as permitted by the Secretary of the Interior for scientific, educational, zooligical, or medical purposes. The proposal includes a list of "low risk" wildlife, which means that all species not listed as "low risk" would be prohibited from importation except under a strict permit system and for the reasons indicated above.

These regulations could have a significant impact on the pet industry in the U.S. The ornamental aquarium fish and accessories trade is likely to suffer the greatest economic hardship. The proposed regulations would reduce bird importation by about 50%. Trade in mammals would be reduced by about 45% and imports of reptiles would be reduced about 95%. Importing of amphibians would be curtailed by about 15%.

Excerpts from Sierra Club comments: Seventy-four years ago the Interior Department was given a tool to control wildlife traffic into the United States. The passage of the

Lacey Act, however, had very little effect in controlling undesirable wildlife importation. ... In recent years, with the growing environmental awareness of the American people, with the growth of the environmental organizations and with the increasing sophistication of the wildlife protection and sportsmen's organizations, Interior and other governmental agencies have begun to look at the total wildlife picture. We are witnessing the birth of a new ethic in wildlife conservation—an ethic that recognizes the needs and desires of the total community rather than the needs of specialized interests only. The regulations and draft environmental statement...constitute a major milestone in this birth of a new ethic.

"The National Audubon Society endorses the regulations wholeheartedly," said Richard L. Plunkett, Audubon ornithologist. The regulations are aimed at diminishing the risks of the present practice of importing vast numbers of exotic species into the U.S. for medical research, zoos, and pets (over 100-million live fish are imported into the U.S. per year). Most biologists and zoologists are against all introductions of all exotic species because the long-term risks (monk parakeets, starlings, etc.) are impossible to calculate. "It is time to take all practical measures to reduce the level of risk to a level that man--and his environment -- can live with," Plunkett warned. While the regulations will cut off importation of a number of species, Plunkett said "nothing in the proposed rules will limit trade in exotic species bred in captivity by using stocks of those animals already imported." Charging that too little is known about what the trapping of these birds and animals is doing to the wildlife of other lands and the risks it entails for the U.S., Plunkett suggested specific scientific criteria to be included in the regulations to help the public determine whether a species may still be imported. He said National Audubon also believes that the psittacine birds (parrots, parakeets, and the like) should be included under the regulations, from which they are now omitted.

Comments on Injurious Wildlife, Proposed Importation Regulations to Director, Fish and Wildlife Service, U.S. Department of the Interior from President Wayne C. Gagne, 29Jul1974:

The Hawaii Audubon Society would like to offer its strongest endorsement of the draft environmental statement of the new rules to regulate importation of exotic wildlife for pets. Hawaii, more than any other state, has suffered from the excesses of the pet shop industry. Escaped caged birds in particular pose a serious threat with respect to disease and competition. The competitive aspects include competition for space, food and breeding sites. There is increasing evidence that these escaped and established cage birds have brought with them a variety of pathogens and parasites, the most notable of which are bird malaria and bird pox. These, in concert, are believed to have eliminated most of our endemic forest birds in all habitats below approximately 3,000 feet, the limits of the mosquito vector for these diseases.

With respect to competition, a case in point is the Japanese white-eye or mejiro (Zosterops japonica), which, since its introduction in 1929, has spread to all of the main islands, and become the most abundant forest bird on the main Hawaiian islands. This bird is known to feed on nectar and insects, both of which are the principal diet of the endemic Hawaiian birds. It is thought, though not proven, to be the most serious competitive threat to our endemic avifauna. In addition, a number of escaped cage birds are in themselves potential or actual agricultural pests. For example,...the sorghum industry on Kauai was thwarted until control measures could be developed for the exotic ricebird (Lonchura punctulata) and linnet (Carpodacus mexicanus) infestations. The blackheaded mannikin (Lonchura malacca atricapilla) recently established on Oahu, is a potential pest for any cereal crop that may be undertaken here. Several fruit-eating exotic established cage birds, such as the red-vented and red-whiskered bulbuls (Pycnonotus cafer and P. jocosus, respectively), as well as the green-cheeked amazon parrot (Amazona viridigenalis), have recently become established on Oahu. It is anticipated that these would become agricultural pests should they reach the major papaya growing areas in the islands of Hawaii and Kauai.

In view of the fact that at least ten species of psittacine birds in addition to the green-cheeked amazon have escaped in Hawaii and, quite fortunately, most have apparently not established, we urge that restrictions also be placed on the parrot family in these regulations. We see a great disadvantage in having jurisdiction over cage birds being placed in two federal departments, that is, both the Department of the Interior and the U.S. Public Health Service.

In fact, we even have qualms about the exemption on canaries, in view of the Hawaiian experience. A substantial breeding population of canaries have established on the island of Midway. So, it seems that canaries also have the potential of establishing on suitable subtropical environments, and thus, review of their treatment in the proposed regulations might be warranted.

The regulations are very weak with respect to aquarium fishes. In the more urbanized Hawaiian islands, our streams at low elevations are aswarm with released exotic aquairum fishes. These, in concert, pose the same competitive threats to our endemic freshwater biota as those mentioned above for exotic birds.

The excesses and abuses of the pet and aquarium industries are particularly poignant in a fragile oceanic insular ecosystem such as Hawaii. We are enclosing a Hawaii Audubon Society resolution of 18 June 1973, along with an explanatory letter of 27 June 1973, /THE ELEPAIO, Vol. 34, No. 2, Aug 1973, pp 18-19/ which supports our State Department of Agriculture's control program and importation regulations for exotic cage birds. We urge that this Hawaiian initiative be backed up with solid regulations at the federal level. ...

Letter from Thane Pratt, New Guinea, 20 May 1974, requested information on the parrot population. He said, "The New Guinea birds and environment are out of this world but no easier to enjoy than elsewhere. Here an old (but new to me) villain, the aboriginal stomach, consumes much of the wildlife, so that the larger species—cassowaries, hornbills, crowned pigeons, and cockatoos—are hard to find except in remote areas."

Reply from Erika Wilson, Corresponding Secretary, 2 June 1974: ... I spoke with Dr. Berger (University of Hawaii), Mr. Throp (Director, Honolulu Zoo), and Mr. Woodside (Dept of Fish and Game) concerning the parrots on Oahu. Dr. Berger said that the situation is largely one of conjecture, because no one has really made a study of the parrots here. Mr. Throp told me that the Green-cheeked Amazons seem to have stabilized their numbers; no breeding and nesting is known to occur. They are seen each morning and evening near their roosting trees in Kapiolani Park. The Nanday Conures seem to be scattered, he says, as one flies with the Amazons and the others were seen around Kapiolani Park. He also once saw a Jendaya Conure in the same area, but thinks it didn't survive long. Numerous Budgerigars escape from cages, but they seem unable to establish themselves in the wild. The Peach-faced Lovebird reported in the Christmas Count was an escapee from the Zoo which Mr. Throp hopes to recapture as it hangs around the caged parrots. Escapees from Paradise Park in Manoa are usually recaptured as well. Mr. Throp also mentioned that Mr. Woodside had seen a group of Indian Ring-neck Parakeets on the windward side of Oahu. Hr. Woodside confirmed that several months ago he had seen half a dozen around Waimanalo, but he hasn't seen them lately. ... As far as I know, there aren't any parrots loose on the other islands. ****

Golden Pheasants at the Koke'e Museum Park: The Board of Agriculture received a request from Hr. Dean Nadatani of Lawai, Kauai, to release ten pairs of golden pheasants (Chrysolophus pictus) at the Koke'e Museum Park, Kauai. These birds are from a flock introduced into Hawaii under permit with a condition that they be kept in captivity. Mr. Nadatani feels that the birds will enhance the beauty of the park and has offered to release the birds in the park confines at no cost to the State. This request was submitted to the Advisory Subcommittee on Land Vertebrates and the Advisory Committee on Plants and Animals and their recommendations and comments were as follows: Recommended -- disapproval. Comments -- Birds will not remain in park confines. ... The golden pheasant was first released in Hawaii in 1865, presumably by private individuals and failed as an introduction. It would be inadvisable to introduce this species at the present time as little is known about its life history, food habits, effects on agriculture, possible competitiveness with other species of wildlife, etc. Because Koke'e is so near areas of prime native forest extreme caution should be exercised in approving introductions of exotic species which may have an adverse impact on native ecosystems. Unless and until definitive studies of this species in its native habitat and possible impact on the Hawaiian environment are made, no introduction should be approved. ... Further, we have the jungle fowl as a wild bird at Koke'e and it is of rather ancient Polynesian origin in Hawaii. The introduction of additional birds to Koke'e region should not be permitted under any circumstances because of possible encroachment on the Alaka'i Swamp.

Field Notes from Mary M. Roberts, 27 Sep 1974: Two well-fed Javanese ricebird /Java

sparrow (gray)/ came to my feeder /lower Makiki Street/ a few weeks ago. Since my presence only three feet away did not send them away in panic, I feel they were recent escapees from a private home. Red-whiskered...bulbuls have been added to my regular daily visitors of Kentucky cardinals, Brazilian cardinals, linnets, doves, mynahs and white-eyes, but a more recent addition is a large, black bird about the size of a Mandarin dove /spotted dove ?/ which comes about 7 o'clock in the morning, flies from tree to tree, chosing always the highest branches, and calls a very loud "I am here; I am here" which echoes back and forth from the tall apartment buildings making it not too easy to locate him. Yesterday a pair came with a young one whose tail had not developed yet. This bird is the same kind I was able to observe at close range at a friend's home on Alewa Heights. It has a black head, very slight crest not always raised, dark dustybrown body, and when in flight shows a strip of white on its long tail and wings. A cousin in Manoa has seen them in his garden, and another cousin on Pensacola Street has seen them at her bird bath. Can anyone identify?

From Robert J. Shallenberger: African Silverbill

I recently observed a species of/finch on the island of Hawaii that is worthy of note. On 24 September 1974 while staying at Pohakuloa State Park, I observed and photographed what appears to be the African Silverbill. During my three-hour observation period, a total of twenty individuals were seen. Mr. Ernest Kosaka (District Biologist on Hawaii, Division of Fish and Game) informed me that individuals of this species had been coming to his birdbath at Pohakuloa for nearly two weeks prior to my arrival. He was familiar with their distinctive high pitched call. They visited the birdbath with several other exotic species: House finch, House sparrow, White-eye, Leiothrix.

The bird is sandy brown above with darker wings, and lighter below. Its bill is slaty blue-gray. The distinct long tail feathers are dark brown, reflecting a reddish tint in the sun. Unlike its close relative, the Indian Silverbill, the species observed possesses no white rump feathers. The taxonomic status is unclear, although Department of Agriculture records (1967) refer to it as Lonchura (Aidemasyne) cantans. In that year, 104 individuals were brought in under permits allowing males and females for cage purposes only.

A recent publication of the Cooperative National Park Resources Study Unit at the University of Hawaii mentions of an exotic bird ("warbling silverbell") whose "breeding range...is moving upwards from the Kona district toward the Park (Hawaii Volcanoes)". I assume that the same species is involved, although this has not been confirmed.

Our past history of serious agricultural problems with the Ricebird (same genus, Lonchura) and the House Finch is well known. It is too early to assume that the Silverbill poses a serious threat, but there is certainly sufficient reason to be concerned. Observations of the species at such distant sites as Kona and Pohakuloa (if it is the same species), suggest that the bird may already be well established. While its population is low, we should consider possible eradication, before the potential threat to sorghum and other crops is realized.

Editor's Note: FINCHES AND SOFT-BILLED BIRDS by Henry Bates & Robert Busenbark, page 129
Indian Silverbill (Lonchura malabarica or Euodice malabarica)—Neither the Indian nor
African Silverbill could be considered attractive; both are inexpensive, hardy, and good
breeders. They require little care and will rear their young on seed alone. The Indian
Silverbill has a silver-gray beak and a white area covering rump and uppertail coverts.
The upperparts are brown with very dark tail and flight feathers. The underparts are
whitish with a shade of buff. Indian Silverbills show greater contrasts and are therefore
more attractive. The overall size is approximately four and a half inches including the
sharply pointed tail. Reasonably difficult to sex, males usually have larger and more
masculine beaks. The males sing pleasant little warbles and dance their funny, hopping
jigs. The standard finch box is preferred, and incubation is twelve to thirteen days.

African Silverbill (Lonchura cantans or Euodice cantans) --... Same as the Indian variety except for a uniform buffish-brown on upper as well as lower parts. The wings and tail are only slightly darker than the general body coloring. The rump is brownish instead of white. The two species freely hybridize, and offspring are easily recognizable because they have pinkish rumps.

Photograph of both birds on page 503.

Your KOKUA is needed! If you have any information on this new exotic, a potential grain farming threat, please write to Kojima, 725-A 8th Avenue, Honolulu, HI 96816.

At the October board meeting it was suggested that our constitution should be reviewed and if necessary updated. The following constitution is presented for your consideration:

CONSTITUTION: Hawaii Audubon Society (First meeting, March 1939)

Article 1. Name: The name of the Society shall be the Hawaii Audubon Society. It is affiliated with the National Association of Audubon Societies. It was founded by George C. Munro and first organized by Charles M. Dunn. The emblem of the Society shall be the native Hawaiian bird, the 'Elepaio, which typifies that friendliness to man which the Society reciprocates in its attitude to all wildlife.

Article 2. Aims: The aims of the Society are as laid down by the National Association of Audubon Societies: (1) To arouse public appreciation of the beauty and economic value of wildlife and to stimulate action to preserve and protect it. (2) To preserve an adequate breeding stock of all native wildlife for the enjoyment and material benefit of mankind. (3) To preserve environmental conditions of ample food, water and cover on the maintenance of which all wildlife is dependent for survival. (4) To fix guardianship responsibilities on Federal, State or competent private agencies, to safeguard all species threatened with extinction.

Article 3. Officers: The officers of the Society shall be a president, two vice-presidents, and a secretary-treasurer. /Currently: recording secretary, corresponding secretary, treasurer, and 2 board members/

Article 4. Term of office: Each officer shall serve one year.

Article 5. Committees: Section 1. A standing committee, known as the Executive committee shall be composed of the regularly elected officers. An Executive committee meeting shall be called by the president when deemed necessary and it shall be the duty of the committee to direct the general policies of the Society. The decisions of this committee are subject to approval of the membership of the Society at any regular or special meeting. Section 2. Such other committees may be appointed from time to time as deemed necessary by the president.

Article 6. Membership: Any person who is in sympathy with the aims of the Society shall automatically become a member upon payment of his dues.

Article 7. Quorum: A quorum shall consist of at least fifteen members present, in addition to votes by mail or proxy.

Article 8. Absentee voters: Any member may vote by mail or proxy if he or she is unable to attend a meeting.

Article 9. Amendments: Any amendments to the constitution may be proposed at any regular business meeting, but shall not be voted on until the next regular business meeting.

BY-LAWS

Article 1. Section 1. The president shall appoint a nominating committee in November. This committee is to present a list of candidates to be voted on in December. Nominations may also be made from the floor. Section 2. An officer shall be elected by ballot if more than one name is nominated for the office, or by general consent if only one name is nominated for the office. Section 3. The newly/officers shall take office at the January business meeting.

Article 2. Meeting: Section 1. Regular business meeting shall be on the third Monday of each month. The field outing shall be held on the second Sunday of each month. Section 2. The president shall call special meetings as deemed necessary.

Article 3. Order of business: The order of business shall be (1) Secretary's report, (2) Communications, (3) Treasurer's report, (4) Reports of committees, (5) Unfinished business, (6) New business, (7) Programs and announcements.

Article 4. Charter members: All paid memberships on or before 30 June 1939 shall be charter memberships.

Article 5. Dues: Section 1. The dues for each fiscal year ending 31 December shall be as follows: \$3.00-Regular, \$1.00-Junior (18 years and under), \$100.00-Life. Section 2. When a new member comes into the Society within three months of the expiration of a fiscal year, the dues shall be credited to the following year. Section 3. Special dues shall be assessed the members only after the approval of a quorum at a regular meeting.

Article 6. Amendment: These By-laws may be amended by a two thirds vote of the members present at any regular business meeting.

Article 7. Finances: The Secretary-treasurer / Currently: Treasurer / is empowered to deposit in and withdraw money from the Society's account at the Bank. A financial statement, duly audited by an auditing committee of three members appointed by the

president shall be presented at the December meeting.

Please send in recommendations to Kojima, 725-A 8th Avenue, Honolulu, Hawaii 96816.

AUDUBON, March 1972, Vol. 72, No. 2, page 112: A Statement of Audubon Philosophy

(1) We believe in the wisdom of nature's design. (2) We know that soil, water, plants, and wild creatures depend upon each other and are vital to human life. (3) We recognize that each living thing links to many others in the chain of nature. (4) We believe that persistent research into the intricate patterns of outdoor life will help to assure wise use of Earth's abundance. (5) We condemn no wild creature and work to assure that no living species shall be lost. (6) We believe that every generation should be able to experience spiritual and physical refreshment in places where primitive nature is undisturbed. (7) So we will be vigilant to protect wilderness areas, refuges, and parks, and to encourage good use of nature's storehouse of resources. (8) We dedicate ourselves to the pleasant task of opening the eyes of young and old that all may come to enjoy the beauty of the outdoor world, and to share in conserving its wonders forever.

Hawaii Audubon Society's Policy Statement: In recognition of the interdependence between birds and other life forms, and in our awareness that each life form depends ultimately on the ecosystem or total natural environment in which it exists, it is a basic policy of the Hawaii Audubon Society (HAS) to seek, support, encourage and, where possible, contribute to the preservation and enhancement of Hawaii's natural environment in general. As a practical and essential function of that policy, the HAS places priority on the preservation and protection of those particular ecosystems in our islands that are the most unique and the most vulnerable. The latter are, typically, associated with environments that have undergone and are undergoing change due to outside influences, which has resulted in shrinkage of specialized habitat areas and consequent endangerment of those species of flora and fauna that depend on them. The "domino theory" of geopolitics is peculiarly applicable to ecobiology: the fall of one species can trigger the fall of others with which it is interdependent, creating a wave of toppling species that can destroy an entire ecosystem. The smallness, uniqueness and highly specialized character of many of Hawaii's identifiable ecosystems make them especially fragile and susceptible to permanent damage or total obliteration. Illustrative of that fragility is Hawaii's world record for extinct bird species, which we regard as a prophetic and compelling reason to pursue effective conservation measures in our islands. Though we are a small group, with no significant financial or physical resources, we do have accessible to the HAS, both within and outside our membership, considerable expert knowledge of the flora, fauna and ecological dynamics of Hawaii's natural environment. Within the framework of our knowledge and our feelings, the HAS supports all practicable and potentially effective efforts by any individual or group to preserve, protect or enhance Hawaii's natural environment. It will be our purpose to acquire and propagate old knowledge and new toward that end--particularly, but not exclusively, with respect to Hawaii's birds.

Christmas Bird Counts: The first annual census of America's birds (the idea of the late Frank H. Chapman of Englewood, New Jersey) was conducted in 1900. This year we in Honolulu will participate in the 75th annual count with other birders all over North America. The Honolulu count area centers at Nuuanu Pali and covers the south-east tip of Oahu.

Honolulu's old counts are full of fascinating information. The numbers of birds usually varies with the number of party-hours spent counting. There are exceptions, however. The seabird counts are often influenced by the weather; good weather produces low counts because the birds are at sea, stormy weather drives the birds to shelter along the windward coast. Variations in numbers also reflect changes in habitat; the shorebird and duck counts in 1973 were drastically reduced by the loss of Salt Lake as a feeding and wintering area for migrants. Another change in numbers occurs when a new species is introduced. If the bird successfully adapts to Hawaii, its numbers will increase; if it is unable to establish a breeding cycle, the number of individuals remains stable for a time and then declines. With the passage of strict laws concerning the introduction of exotic species to Hawaii, there should be an end to new species on the Christmas counts. Hopefully, the laws will result in a reduction of introduced avian diseases and parasites which have done so much damage to the native birds.

The 1973 Summary of Highest Counts of Individuals for Canada and the United States (AMERICAN BIRDS, Vol. 28, No. 2) lists Hawaii as reporting the highest number of individuals in 32 species. This is due to our native birds such as 'Oma'o and 'Apapane which occur in no other state; to our seabird colonies of Red-footed Boobies and Great Frigate-birds; to the introduced species from Asia and elsewhere such as the Shama Thrush and the Barred Dove; and to our geographic position as a wintering site for migrants such as the American Golden Plover.

In addition to the invaluable data gathered on a Christmas count, and the delight of birding, one can expect to: listen to the melodious Shama Thrush, strain to catch a glimpse of an 'Amakihi, and lose track of the Common Mynahs after the 99th individual comes to roost at dusk. I hope all of you will set aside DECEMBER 22, 1974, as a special birding day. We need car drivers as well as trail walkers, scorekeepers as well as sharp-eyed observers. People having guests for the Christmas season are particularly urged to participate because the Christmas count provides a unique opportunity for visitors to see the birds of Hawaii. For our members on the other islands there is the Volcano count on the island of Hawaii, as well as several on the island of Kauai. I had the pleasure of participating in the Volcano count last year, during which I saw my first 'I'iwi, 'Oma'o, and 'Io. I plan to join one of the Kauai counts this year, and hope to see some of the unique birds on that island. Maui doesn't have a count, but maybe the increased membership there would like to organize one, perhaps with Haleakala as a center.

There will be further details on the Christmas count for Honolulu in the next issue of THE ELEPAIO. If you would like to participate in this rewarding activity, call Erika Wilson at 523-1843 in the evenings.

Erika Wilson

Field Trip for Shorebirds by Erika Wilson: On September 8, 1974, thirteen people, including 3 guests from Colorado, met to watch shorebirds. To begin our day a lovely White Tern landed in the monkeypod tree directly over our heads at the State Library. With this auspicious beginning we went to the sugar mill settling ponds on the Waipio Peninsula. The first two ponds are filled in, but the third pond had some standing water, where we saw Golden Plover (30), Sanderlings (27), Hawaiian Stilt (21), Ruddy Turnstones (18), and Cattle Egrets (30). One person also saw 3 Ring-necked Pheasant in the sugar cane fields.

At the abandoned airstrip on the peninsula the tide was quite high, so very few shorebirds were visible. However, we did see several Golden Plover flying, a Wandering Tattler roosting on some pilings, several Hawaiian Stilt flying, as well as a Ruddy Turnstone, an immature Black-crowned Night Heron, a Dowitcher, and several Cattle Egrets.

In the shrubbery along the airstrip we saw Spotted Doves, Common Mynahs, Red-crested Cardinals, Cardinals (North American), Black-headed Mannikins, and Ricebirds.

As the morning was still young, we went to Na Laau Arboretum on the side of Diamond Head, hoping to see the exotic finches. The area is extremely dry at this season, and we saw few birds. We did see Japanese White-eyes, House Finches, Common Mynahs, Spotted Doves, Red-crested Cardinals, Cardinals (North American), and a Mockingbird.

Field Notes from Erika Wilson: Lower Moanalua Stream empties into Keehi Lagoon after passing Shafter Flats, a large grassy field bordered by shrubs and trees where I usually see Spotted Doves, Barred Doves, and Common Mynahs feeding. In the shrubs and trees there are N.A. Cardinals and House Sparrows. In the tall grasses along the stream I see small groups of Ricebirds and House Finches.

When August comes so do the American Golden Plover; there are usually six to ten individuals on the field, spaced far apart, feeding and preening. I have seen one take a vigorous bath in a temporary pool of water left by the rain (October 2, 1974, at 9:00 am). Sometimes a pair will fly in easy patterns, calling back and forth before settling to the ground, their narrow wings thrown up in the air behind them.

As the tide recedes, narrow shelves of mud are exposed along parts of the stream. Occasionally I have the pleasure of hearing a Wandering Tattler call as it feeds along these narrow mudflats, or I see a pair of Ruddy Turnstones flash past on their way upstream. On October 1, 1974, at 9:00 am I heard a Wandering Tattler call; soon I saw it moving along the water's edge. Then I realized that there were two of them, one feeding deliberately, the other calling and moving restlessly around its companion. I was delighted when a third Wandering Tattler joined the other two, especially since I had never seen more than one of these birds at a time. All too soon the three took flight.

But on the following day at 1:00 pm I again saw two Wandering Tattlers feeding along the stream's edge. Three Ruddy Turnstones flew by, headed for Keehi Lagoon; one of them stopped to join the Wandering Tattlers, probing the mud for a bite to eat. After a short time they flew off.

Unfortunately, the opportunities for observations are often destroyed by big trucks dumping loads of cement and dirt fill, people casting nets for crabs in the stream, groups of soldiers jogging around the field, and motorboats chugging by. One side of the stream (bordering a light-industrial area) is paved with stone to prevent soil erosion, but the paving also eliminates the tidal mudflats so vital to shorebirds. That some birds can overcome these obstacles makes me feel quite honored when I see them in a rare quiet moment along the stream.

PO'O ULI: Q: OCCASIONAL PAPERS of Bernice P. Bishop Museum, Vol. 24, No. 12, 2 Aug 1974, page 219 states, 'the common name of po'o uli, meaning "black-faced" in Hawaiian.'
Po'o is head whereas make is face. Is there any good reason for using po'o instead of make,

and also is it supposed to be hyphenated?

A: from James D. Jacobi: We felt that although the bird (Melamprosops) was not known—at least by name—in the Hawaiian language, a "common" Hawaiian name would be most appropriate for general usage. With this in mind, Tonnie wrote up a description of the bird, its habitat, and the situation leading up to its discovery to be shown to Mrs. Pukui for determination of a suitable name. Mrs. Pukui was kind enough to help by suggesting po'o uli. Po'o apparently means "head" more than "face"; however, literal translations are not always possible, particularly in languages oriented so differently as are English and Hawaiian. It should be written po'o uli, without a hyphen.

General election, 5 November, is your chance to take action. Vote for those candidates who are concerned about Hawaii and vigilantly enhancing her unique ecosystem and heritage.

Also, let's have sunshine and reflect its function and give equal recognition by voting YES to Proposal No.3, an amendment to return the present (Department of Recreation) to (Department of Parks and Recreation) and include a provision for planting, triming, and maintaining plants on public parks, facilities and streets of the City and the beautification of such facilities and public streets. The name of the Department should correctly represent to all the responsibilities and duties and allow for no possible confusion or misunder-standing.

ALOHA to new members:
Anne Badgley, 423 Olohana St, Apt E, Honolulu, Hawaii 96816
Bill Burke, Dept of Zool, Univ of Hawaii, 2538 The Mall, Honolulu, Hawaii 96822
Frances M. Kenyon, 1434 Punahou St, Apt 716, Honolulu, Hawaii 96822
Terry T. Parman, 3663 Alani Drive, Honolulu, Hawaii 96822
Col. Leo E. Schulten, Jr., 1031 Kalikimaka St, Honolulu, Hawaii 96817
Dr. J. Michael Scott, PO Box 44, Hawaii National Park, Hawaii 96718

HAWAII'S BIRDS, a field guide, is available for \$2.50 postpaid, AIRMAIL 65¢ extra. Send in orders to: Book Order Committee, Hawaii Audubon Society, PO Box 5032, Honolulu, HI 96814.

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NOVE BER ACTIVITIES:

10 November - Field trip to Nuupia Ponds, Kaneohe MCAS, for shorebirds. Bring lunch, water, and if possible, your car. Transportation cost (\$1.00) to be paid to the drivers. Meet at the State Library on Punchbowl Street at 8:00 a.m. Leader: Mrs. Erika Wilson, telephone 523-1843.

11 November - Board meeting at McCully-Moiliili Library, 6:45 p.m. Members welcome.
18 November - General meeting at the Waikiki Aquarium Auditorium at 7:30 p.m.
Program: Avian Populations in Hawaii Volcanoes National Park and the Kilauea Forest Reserve by Dr. Sheila Conant (color slides).

HAWAII AUDUBON SOCIETY EXECUTIVE BOARD:

President-Wayne C. Gagne; Vice Presidents-H. Eddie Smith(prog), George-Ann Davis(educ) Secretaries-Barbara Macaulay(recording), Erika Wilson(corresponding) Treasurer-C. Florence Hendrycy

Board Members-Steven L. Montgomery(conservation), Mae E. Mull(Big Island Representative)
THE ELEPAIO: Editors-Charlotta Hoskins & Unoyo Kojima

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

DUES: Regular-\$3.00 per annum, Junior(18 years & under)-\$1.00 per annum, Life-\$100.00