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RESEARCH STUDY PROPOSAL FOR INVESTIGATION OF BEHAVIOR OF THE HAWAIIAN GOOSE UNDER THE "NENE PARK" PLAN

By Jerome J. Pratt

Over a nine years period 297 Hawaiian geese (nene) Branta sandvicensis had been released in Haleakala National Park on the island of Maui without successful reproduction. This was under the Nene Restoration Project, a joint state and federal effort. Then in 1971, three goslings were reared by a pair of birds that had abandoned their man-selected habitat for a niche of their own choice on Kalapawali Ridge (Pratt 1971).

The appearance of these young nene gave new hope to bringing back the species to Maui. Russell W. Cahill, the first professional biologist to serve as superintendent of Haleakala National Park, made a cursory evaluation of the situation and was satisfied a new approach was needed if the Hawaii state bird was to again expand its habitat to this portion of its ancient range (Pratt 1972).

For several years your writer had been recommending exploratory procedures to remedy deficiencies in the existing project without being heard by those in charge of the operation (Pratt 1970). My next move was to recommend a National Park Service sponsored project. This received favorable acceptance at local and regional levels, and I was designated to develop a plan of action. The Wildfowl Trust in England agreed to cooperate by furnishing the breeding stock.

A "Research Study Proposal for Investigation of Behavior of the Hawaiian Goose Under the 'Nene Park' Plan" was drafted. This was a modification of Peter Scott's scheme on a method of returning semi-tame birds to the wild (Scott 1962). On September 13, 1971, the superintendent approved the proposal and it started on its way to Washington through channels.

In the Park Service's San Francisco Regional Office the proposal was received by a competent wildlife biologist and was given enthusiastic concurrence. Washington was asked to give the matter expeditious handling to allow acquiring the potential breeding stock by December 1971. This would have allowed acclimatization to encourage nesting the following year. The aim was to produce young that would be mature enough for an evaluation of the project by 1977. It is difficult to judge how long it will take transplanted birds to become accustomed to a new enclosure; therefore, we wanted these birds in their new home nearly a year before the next breeding season (Griswold 1966).

A project such as this involving an endangered species needs the cooperation of other agencies. Regretfully, the chairman of Hawaii's Board of Land and Natural Resources; and the U.S. Bureau of Sport Fisheries and Wildlife, and the National Park Service, at Washington level, turned deaf ear on the proposal and would not acknowledge receipt of the correspondence. In my opinion they feared embarrassment when the success of this low-budget project would be examined on a cost-benefit ratio against their extravagant 14-year old federally funded program.

The Haleakala project was saved through the influence of outside factors:

- 1/ the Hui Manu O'Maui (Maui Bird Club) had advocated such a project for a decade;
- 2/ the Maui Chapter of the Conservation Council of Hawaii had endorsed the plan;
- 3/ the Hawaii Natural History Association had appropriated funds for the construction of the enclosures; and 4/ the National Park Service's Centennial year was coming up and this project had been approved as a community activity as part of the celebration.

Finally verbal information got to the park through informal channels that the State would concur if we turned down Peter Scott's offer to provide the breeding birds. The State would furnish birds from the Pohakuloa Propagation Facility on the Big Island. Also the State Division of Fish and Game should be given publicity as a cooperator in the project. To save this worthy project we agreed to their terms. Of course, the birds from The Wildfowl Trust would have been better for the purpose. The English birds would have been pinioned as goslings, while the Pohakuloa birds would be capable of flight. There is always a risk in pinioning adult birds and a delay in their breeding can be expected.

It is imperative that the breeding birds be rendered flightless, as open-top enclosures must be used. The whole idea is to confine the breeders, but allow the offspring to be free-flying so they can leave when mature enough to select their own territories in the natural habitat. While growing up the goslings must be left to the care of their parents to avoid being imprinted by humans as much as possible.

After several delays, three pairs of nene arrived at the Kahului airport from Pohakuloa on March 16, 1972. Two pairs were potential breeders of various ages, and the third pair was sent along for display purposes. The arrival was three months behind schedule, but just in time for the inauguration of the National Park Service Centennial Celebration on Maui. A number of the island's prominent conservationists were on hand to meet the VIG's (very important geese) and considerable state-wide press coverage was devoted to the event for several days following.

Near the park headquarters two spacious enclosures were constructed of chain-link fencing 72 inches high. In each enclosure a pair of nene enjoy natural trees, shrubs, and grass, with a fabricated lava rock cave to provide shelter. There are concrete pools for drinking water and bathing, and sprinkler heads to irrigate the vegetation. Avicultural management techniques are patterned after those used at The Wildfowl Trust and the Pohakuloa Propagation Facility.

The artificial shelters are seldom used by the birds except when feeding. A feeder for commercial poultry feed is kept in the shelter. For roosting and resting, the birds prefer the natural shrubs, Pukiaawe (Styphelia tameiameia) and Mamane (Sophora chrysophylla). A few larger trees, such as Ponderosa Pine (Pinus ponderosa), also provide shelter. To supplement natural grazing, additional green food is provided.

This investigation has the potential of producing a tangible final product, i.e. Hawaiian geese on an expanded range to lessen its current precarious status; and culminate in a formal paper in defined scientific terms on the behavior of the nene held in captivity under the so-called "Nene Park" concept. Recommendations will include methods of assisting in a direction toward removing this species from the endangered list through natural reproduction.

Literature Cited

- Scott, Peter, 1962. A Project for a Nene Park in Hawaii. The Elepaio, 22(11)
 Griswold, John A., 1966. Persistence Pays Off. Modern Game Breeding 11(9)
 Pratt, Jerome J., 1970. The Nene's Return to Maui. Modern Game Breeding 6(4)
 Pratt, Jerome J., 1971. A Breakthrough for Maui Nene. The Elepaio, 32(3)
 Pratt, Jerome J., 1972. Hawaiian Geese. The Elepaio, 33(1)

Powerline Construction in Keiwa Heiau State Recreation Area, Aiea, Oahu
 (Reference THE ELEPAIO, Vol.32, No.8, pp 74-75, Christmas count report)
 Letter from Sunao Kido, Chairman, Board of Land and Natural Resources, 20 July 1972:
 ...I can answer some of your questions myself. The Board of Land and Natural Resources took the following actions applying to both the powerline which was constructed in 1968 and to the additional one which you observed under construction. (The two similar powerlines crossing the lower developed portion of the park were

constructed well before the Conservation District was established.) A right-of-entry was granted to Hawaiian Electric Company, January 27, 1967, for survey and engineering purposes and another right-of-entry, to construct, was granted October 13, 1967. A perpetual non-exclusive easement was granted by the Board on February 9, 1968.

Following considerable discussion, involving both Forestry and State Parks Divisions as well as other Departmental personnel, a Conservation District Use Permit was submitted to the Board and approved April 11, 1968. The accompanying copy of this action indicates the conditions included in the permit.

Both newspapers gave coverage on April 15, 1968, to the granting of the Conservation District Use Permit. This action marked the beginning of a significant change in direction in our dealings with utility companies. They are now supplying us with more complete information, generally well in advance of contemplated construction. They are also giving us long-range planning information on their systems. We are encouraged that our relationships with them continue to improve toward more significant reductions in adverse impact of utilities within the Conservation District. However, we note that Hawaiian Electric's long-range plans indicate the possibility of at least one additional powerline mauka of the newest construction.

The Aiea Forest Reserve Area in which this construction is taking place was placed in State Parks status by Executive Order on November 11, 1971. The Division of State Parks, however, has also been concerned with this area for a number of years because of the dominant recreation values and usage of the area....

Conservation District Use Permit approved 11 April 1968

Conservation District Application OA-67/12/4 - 62, Electrical Transmission Line Use,
Hawaiian Electric Company. Honolulu, Hawaii

Applicant: Hawaiian Electric Company, Inc., PO Box 2750, Honolulu, Hawaii 96803

Location: TMK: 9-7-26:1; 9-8-01:1,2,3,5,7,&8; 9-9-11:2&3; 9-9-10:26

Conservation District Map OA-Waipahu, Kaneohe, Honolulu

Area: Approximately 130 Acres

Use Requested: Overhead Electric Transmission Line, Right-of-way, Halawa to Manana

Background: The Hawaiian Electric Co., Inc. proposes to install two additional 138 KV transmission lines between its Halawa Substation and existing facilities at Manana, Oahu, to meet increasing demands for service and to improve the reliability of its 138 KV transmission system. Five (5) segments of these two transmission lines cross State land within the Ewa Forest Reserve, most of which is now in the process of being turned over to State Parks for the enlargement of Keaiwa State Park.

At its meeting of January 27, 1967, under Agenda Item F-20, the Board granted Hawaiian Electric Co., Inc. a right-of-entry to the subject area for survey and engineering purposes. At its meeting of October 13, 1967, under supplemental Item F-36, the Board granted Hawaiian Electric Co., Inc. a right-of-entry to State land to construct the transmission lines. At its meeting of February 9, 1968, under Agenda Item F-32, the Board granted Hawaiian Electric Co., Inc. perpetual non-exclusive easements for electric transmission lines across government lands.

In addition to the rights-of-entry and easements from the State, Hawaiian Electric Co., Inc. has received construction rights-of-entry and easements from the other landowners over whose lands in the Conservation District the transmission line crosses. These include the Hawaiian Land Company, Ltd., the Austin Trust, the Bishop Estate, Queens Hospital, Oahu Sugar Company, and the Marks Estate.

Analysis: Hawaiian Electric Co., Inc.'s map drawing No. 341.009.00 shows the proposed transmission line alignment. An examination of the map will show that the proposed line will actually be the third set of transmission lines to be built in the general area--in a time span of less than ten years. The effect is a repetition of lines and poles cutting ribbons across the landscape.

The question has been raised as to whether long-range planning by Hawaiian Electric Co., Inc. could result in a better solution, such as integration of the lines to prevent the random proliferation of lines over the country-side, as is now evident, or underground installation of lines, etc.

State Parks points out that power lines have a very serious effect on the

conservation, visual and recreational values of an area, particularly one designated for a park use, such as the Ewa Forest addition to Keaiwa State Park. According to State Park's count, well over a quarter of a million visitors used Keaiwa Park last year, and about 85,000 persons hiked the loop trail that starts and ends at Keaiwa Park and runs along ridges through the Ewa Forest lands. It is this heavy trail use of a wilderness area that warrants its transfer to State Parks.

With the construction of the proposed power lines, hikers will be confronted with tower structures sixty to seventy feet tall straddling their trail along the ridgeline. The negative effect this will have on the recreation experience of the hiker, and the negative effect that the presence of power lines have on a wilderness recreation area cannot be measured in terms of dollars lost, but is a significant loss nevertheless.

However, there is a very significant dollar loss to Keaiwa State Park from Federal funds. Because of the presence of overhead power lines, Keaiwa Park cannot qualify for Federal aid. State Parks estimates this loss to Keaiwa Park at about \$250,000. Because of such a sizable loss of Federal funds, it becomes apparent that serious consideration should be given by Hawaiian Electric to a long-range plan, the consolidation of overhead lines to routes well removed from urban development and recreation areas, and the installation of lines underground, where possible.

The possibility of relocating the proposed transmission line to a position mauka of the park boundaries was discussed with Hawaiian Electric officials. They felt that arrangements for the present alignment have already progressed too far for relocation. They also pointed out that moving the line out of the park would entail an added cost of \$250,000 per line.

In view of this, staff is of the opinion that the proposed alignment, if approved, should be subject to the following conditions which were worked out with State Parks and Hawaiian Electric representatives:

1. Installation of the line in the Conservation District shall be carried out by using helicopters and foot trails. Under no circumstances should access roads be bulldozed through the natural plant growth.
2. Clearing for helicopter landing areas and for poles and guy-wires shall be kept to a minimum, according to State Parks' specifications.
3. Pruning and clearing under the wires shall be kept to the minimum that will safely clear the wires, according to State Parks' specifications.
4. Poles and guy-wires shall be painted a color harmonizing with the surrounding vegetative cover, having a low chroma non-reflecting finish.
5. All disturbed areas, with the exception of those areas that must be kept clear for maintenance, shall be re-planted immediately. Re-planting shall be coordinated with and have the approval of the Division of State Parks, Dept. of Land and Natural Resources.
6. Maintenance of the transmission line shall be performed by helicopter, existing roads and trails, and shall be coordinated with and approved by the Division of State Parks, Dept. of Land and Natural Resources. State Parks Division shall have the option of undertaking the maintenance of the ground area and growth under the line, with this work to be reimbursed by Hawaiian Electric Co., Ltd.

Recommendations: It is recommended that the request to permit the construction and maintenance of an overhead electric transmission line in Waipahu-Kaneohe-Honolulu, Oahu, on approximately 130 acres within the Conservation District, be approved subject to Paragraph C (Conditions: "GU" Conservation Subzone) and Paragraph F (Compliance with Statutes, etc.) of Section 2, Regulation No. 4, Department of Land and Natural Resources, and to the analysis and conditions outlined in this submittal.

Letter from State Parks Administrator J.M. Souza, 20 July 1972:

...As Mr. Kido has advised you, this construction is in the Conservation District and comes under the conditions of the permit granted by the Board of Land and Natural Resources in April 1968.

The conditions have now largely been met by Hawaiian Electric. The principal exception is replanting of the disturbed areas which, due to the regrowth now evident at the site, will be reevaluated this fall, when plantings would have an improved chance of survival. It is our objective to get a planting established, that will

screen out essentially all aspects of the construction and disturbed areas visible from the Aiea Loop Trail.

Though the conditions of the permit did not require it, the pole structure you mention has been fenced with warning signs as safety precautions, and the trail has been relocated a short distance from this construction. All this has been done at Hawaiian Electric's expense.

Our staff people have been well aware of this construction project and have inspected it several times during its progress. We feel the company has made an adequate effort, thus far, in meeting the conditions of their permit.

This permit, however, was a pioneering effort, and powerline effects in the Conservation District continue to be the subject of lively discussion, leading to acceptance of additional conditions, such as the safety precautions and trail relocation aspects, in subsequent permits elsewhere.

We are still hopeful that we can accomplish somewhat more. We feel it is very desirable, for example, that such utility structures be more carefully engineered to reduce their visual and other environmental impact to a minimum. Noise is something we have not yet discussed very thoroughly, but it is recognized that pole line structures can be quite noisy, especially under certain atmospheric conditions. (There are no transformers involved in the existing or proposed powerline systems crossing Keaiwa park.)

Where intrusion upon hiking experience is unavoidable, as for example when a necessary powerline structure and a trail occupy the same ridge top, we hope that the utility companies can be convinced that it is their responsibility to ameliorate that intrusion as completely as possible. This often can be done, in this example, by significant, carefully considered relocation of the trail through areas of cover which screens out visual impact and is sufficiently removed that noise is no longer apparent.

Field examination indicates that such a relocation of the Aiea Loop Trail is possible which would avoid sight of the 1968 powerline structures as well as the new one, at the same time providing a better connection to the "Little Aiea Loop" Trail. We have no assurance, as yet, that the company will provide such a relocation, however.

Meanwhile, we will continue to coordinate our efforts within the Department of Land and Natural Resources to assure that all viable alternatives have been fully evaluated before agreeing to any additional powerlines crossing the Keaiwa area, and, should such lines prove necessary, to continue to improve the conditions of the permits to assure greatest protection of natural and scenic values....

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Audubon's objection to HB 2144 to Representative Richard A. Kawakami, Chairman and members of the Committee on Lands, House of Representatives, The Sixth Legislature by President Charles G. Kaigler, 15 March 1972:

...The Hawaii Audubon Society wishes to record its objection to HB 2144 which amends Section 183-41, paragraph (1) Hawaii Revised Statutes so that the proposed use of land in a conservation zone for utility purposes shall not be considered as a "commercial purpose." The statute now requires a public hearing in every case involving proposed use of land in a conservation zone for commercial purposes. Utility companies, while providing absolutely necessary services, are commercial enterprises and are required to show profits if they are to remain in business long. We see no reason why they should be given extraordinary consideration in conservation zones. Utility companies have not in our opinion, at least up to the present, demonstrated any extraordinary concern with either environmental effects or esthetics as opposed to economics unless forced to do so by an aware public. One has only to walk the Aiea Trail today to find a recent example of what we are concerned with. We believe that the utility companies should be required to continue to present their future plans within the conservation zone to public scrutiny as does any other commercial enterprise.

Audubon's objection was sent also to Governor Burns on 31 May 1972, but on 3 June 1972 HB 2144 was signed into law.

Field Notes from Charles & Hilde Kaigler:

27 August 1972: The settlement basins at Waipio are picking up again. We counted over 175 stilt, over 500 cattle egret, more than 50 each of golden plover and ruddy turnstone and one sanderling and one pintail.

On Sunday morning Walker's Bay held 10 stilt, 12 coot, 7 black-crowned night heron, a dozen each of plover and turnstone, one sanderling, and one wandering tattler as well as the resident mallard.

The tide was too high at West Loch, but we did find a dozen or so each of stilt, coot, plover, and turnstone, one sanderling, and one pintail.

The Waipahu dump was dry and is apparently pau.

The Ft. Kam beach area (on the preceding day) was fairly good--ten stilt and a small number of plover, turnstone, and a couple of sanderling. Observation here was casual.

28 August: Two young red-vented bulbuls in the eucalyptus outside our Anoi Place house.

The Ft. DeRussy fairy tern is quite active now, climbing about the branches of the monkeypod tree and at times fluttering from branch to branch.

Audubon's position presented at the Public Hearing on the Wilderness Area Proposal within Haleakala National Park held in Honolulu, 17 November 1971 by President Charles G. Kaigler:

The Hawaii Audubon Society heartily approves the proposal of the National Park Service to designate the greater portion of the Haleakala crater and the Kipahulu Valley as a wilderness area for inclusion in the National Park Wilderness Preservation System. Kipahulu Valley is one of the few, perhaps the only, area in Hawaii that can be claimed to be almost undisturbed by man. The preservation of this primitive island rain forest in its present natural state is of prime importance if any of the original wild beauty of Hawaii is to be retained. Kipahulu Valley is the only area still known to be a habitat of the crested honeycreeper, the Maui parrotbill and the Maui nuku-pu'u, all on the endangered species list. Other endemic species also inhabit this valley. The list of extinct endemic Hawaiian birds is already much too long. There can be no excuse for adding others to this list, at least through man's own activities. The continued protection of the endemic flora and fauna found in Haleakala and Kipahulu, including the adjoining State land areas to be added to the park, can be assured by this action.

We do have two comments. We would prefer to see the portion of the plan referring to a feral goat and exotic plant "control" program restated as an "elimination" program. National Park Administrative Policies for Wilderness Areas do call for this where possible. While we are fully aware of the difficulties involved we do feel strongly that elimination of the feral goat, recognized by practically all biologists and wildlife managers as the most destructive creature in the Hawaiian ecosystem, as well as other destructive exotics should at least be a goal and so stated as basic policy. Perhaps this is only a matter of semantics, but there is a feeling among our membership that the usage of the word "control" can be given too many interpretations.

We would also prefer to see the elimination of the telephone system at some time in the future, if feasible, and the substitution of a radio system of communication so that the 20' corridor used for the telephone system can be returned to the wilderness area.

Addendum by Wayne G. Gagne, Board Member, 13 January 1972:

Please hold these remarks for inclusion in the official record. At the January 10, 1972 meeting of our Executive Board it was decided that one aspect of the Wilderness Proposal had not been sufficiently discussed at the hearings in December 1971. The Executive Board has asked me to summarize our comments on behalf of the Society relating to the proposed facilities for overnight camping at Paliku and their possible impact on the nene restoration program. On reflection, we feel that until the major factor(s) in the dismal reproductive success of the nene in Haleakala are more fully understood, the human activity in that area of the Park be

kept down to at least present levels. We would not want to eventually discover to our regret that human activity was the major factor after the area had been opened to more campers. This, of course, is contingent on the nene release area remaining centered at Paliku. But this should give the biologists working on this project the leeway they may need in the next few years.

Audubon's support of HR 11774 to Representative Roy A. Taylor, Chairman of Subcommittee on National Parks and Recreation, Committee on Interior and Insular Affairs, US House of Representatives by President Charles G. Kaigler, 7 January 1972:

The Hawaii Audubon Society, dedicated to the better protection of wildlife in the Hawaiian Islands, does support H.R. 11774 authorizing a feasibility study of the Honokohau area as an addition to the national park system.

Others here today are far more qualified than we to describe the historic values of this area. We want to emphasize the value of Honokohau Pond and Kaloko Pond as natural habitat and as a sanctuary for Hawaii's endangered waterbirds, in particular the Hawaiian Stilt and the Hawaiian Coot. Both of these species inhabit these ponds. Admittedly their numbers are not great. Both birds are on the Endangered Species list. The island of Hawaii has the lowest present population of these birds of any of the major islands. The annual count of the Hawaiian Stilt conducted by personnel of the State Division of Fish and Game of the Department of Land and Natural Resources and the Federal Bureau of Sport Fisheries and Wildlife of the Department of the Interior this past summer showed a decrease in stilt populations both statewide and on the island of Hawaii. The island of Hawaii is not overly blessed with areas suitable for waterbird habitat. As a matter of fact, Honokohau Pond (Ainakapa) and Opaepa Pond about seven miles to the north are, with the addition of Kaloko Pond as an intermediate, the only areas on the island of Hawaii really suitable for the preservation of native waterbirds and used by them at the present time. The stilts and coots move between the two major ponds and also use Kaloko intermittently. Small flocks of migratory ducks and shorebirds also use the ponds during the winter months. Several koloa, the Hawaiian duck now being brought back from the verge of extinction, have been observed on Opaepa. It is quite possible that this native duck will also use Honokohau as a natural habitat. We understand that the U.S. Bureau of Sport Fisheries and Wildlife is quite interested in the future of the Honokohau and Opaepa Ponds. Certainly we, as a Society, want to see these ponds protected as waterbird habitat.

A sanctuary within a national park seems not at all incompatible with the preservation of an area as an historic site. The natural areas remaining in these islands, with emphasis on those providing a suitable habitat for our disappearing wildlife, are fast disappearing and deserve protection as do sites of great historic value. The preservation of these valuable areas, both historic and natural, is of primary importance. Here it appears feasible that both an historic site and a wildlife sanctuary can be brought a step closer to complete protection within one area and by one action. H.R. 11774 can lead to the accomplishment of this goal. The Hawaii Audubon Society urges the passage of H.R. 11774. /Passed House 17 April 1972/

Audubon's recommendation to House Resolution No. 94 to Representative Richard A. Kawakami, Chairman, and members of the Committee on Lands, Sixth Legislature by President Charles G. Kaigler, 1 March 1972:

As a representative of the Hawaii Audubon Society I would like to make a recommendation in regard to House Resolution No. 94. As I understand the situation, this same resolution, in one form or another, goes back some fifteen or so years and the hunters still do not have rights-of-way into many of the public lands that should be available to them. If this resolution could be expanded to include the benefits of access to all that engage in and enjoy outdoor activity in a more - or - less natural environment, i.e. hikers, birdwatchers, in fact nature lovers in general, it seems to me that the base for wider acceptance and support of future action on any bill that might result from this resolution would be much broader. Limiting the benefits from these rights-of-way to hunters alone provides a very narrow base for support.

Let me say that the Hawaii Audubon Society is not, despite frequent misunderstandings, opposed to the hunting of game species when such hunting is done ethically, in accordance with laws and regulations, and in areas specifically designated by proper authority as hunting areas. When we do have objections to hunting, the objection will be specific, will be based on the best scientific evidence that we can get, and will be for the better protection of Hawaii's rare and endangered unique flora and fauna. Public lands under the State game management program are certainly areas to which hunters should have access. They might have a better chance of getting it if this resolution can encompass all that have an interest in wildlife, whatever that interest may be.

Audubon's support of SB No. 1704 to Senator Kenneth F. Brown, Chairman, and members of the Committee on Ecology, Environment and Recreation, Sixth State Legislature by President Charles G. Kaigler, 13 March 1972:

The Hawaii Audubon Society wishes to record its support of Senate Bill No. 1704 with the following comments. We have in the past supported the establishment of the Paiko Lagoon Wildlife Sanctuary. We have objected to the designation of the entire area as a State Park as this implies amenities for picknicking and recreation not compatible with a wildlife sanctuary. It is our present understanding that planning now calls for the development of a two acre plot of State-owned ground at Kuliouou as a parking area plus a footbridge across the Paiko Lagoon inlet to the Paiko peninsula. The bridge is to act both as an access to those desiring to observe the wildlife of the lagoon and as a bar to boats entering the lagoon. Both the lagoon and the peninsula are to be left in as natural state as possible, consistent with the removal of the mangrove and with proper drainage of the lagoon, so that the lagoon and the peninsula will remain and perhaps even be improved as a habitat for the endangered Hawaiian Stilt and other wildlife. With this particular area properly designated and protected as a sanctuary, we have no objections to the present designation of the entire area as the Paiko Lagoon State Park and Wildlife Sanctuary, although we would prefer to see the word "Natural" preceding "State Park." As you already know, the Hawaii Audubon Society supports all efforts for the better protection of endemic wildlife in Hawaii.

Excerpts from the minutes of the Hawaii Audubon Society general meeting, 17 Jan. 1972:

...Dr. Alan Ziegler, vertebrate zoologist at the Bishop Museum, discussed the historical background of the proposal to introduce Axis deer as a game mammal for hunters to the Island of Hawaii--pending since 1950. Civil court suits by ranchers to stop that release by the State Division of Fish and Game and action by the Governor in stopping transport of the deer from Lanai to the Big Island have temporarily restrained the introduction. The Axis deer proposal is now before the new Animal Species Advisory Commission who are studying the issue and will make an advisory recommendation to the Fish and Game Division. Audubon members were asked to circulate petitions for signatures and to write letters to Mr. Sunao Kido, Chairman of the Board of Land and Natural Resources, and to Mr. Ronald Endrizal, Chairman of the Animal Species Advisory Commission, expressing their own views on having Axis deer on the Big Island as a new game mammal for the benefit of hunters.

The secretary proposed a Resolution on the Introduction of Axis Deer to the Big Island....

President Kaigler reported briefly on these activities of Society officers and members during the previous month:

1. The Society exhibit at the "Shoreline in Crisis Conference" held at Roosevelt High School, December 28-30, 1971.
2. The Society presented testimony at the public hearing before the Subcommittee on National Parks and Recreation of the Committee on Interior and Insular Affairs, House of Representatives, on H.R. 11774, to authorize a feasibility study of Honokohau National Historic Landmark, Hawaii, as a unit of the National Park System, held at Kailua, Kona on January 7, 1972. The study includes Kaloko Pond and is supported by Hawaii's Congressional delegation.
3. In connection with the Honokohau hearing, Mr. Norman Carlson, manager and

forester for Bishop Estate lands on the Big Island, said the Estate plans to conserve Opaepa Pond. Opaepa Pond, North of Kaloko Pond on the Kona Coast, is a major habitat of the Hawaiian Stilt and Hawaiian Coot on the Big Island.

4. The Society presented testimony at the Public Hearing on the Wilderness Proposal and Master Plan for Haleakala National Park, including the new addition of Kipahulu Valley, held in Honolulu on December 16, 1971. Our special concern is the continued presence of feral goat populations in the Park that are so destructive to native vegetation.

5. The Society has commented to the State Office of Environmental Quality Control on the Environmental Impact Statement concerning the Division of Forestry proposal to bulldoze 154 acres of essentially native forest in the Keaa Forest Reserve on the Hamakua Coast of the Big Island for a commercial reforestation project with Queensland Maple and other exotic hardwoods.

6. A letter has been sent to Governor Burns requesting that he release the \$40,000 of appropriated funds for study and control of the 'ohi'a dieback problem on the Big Island.

7. The Koke'e Water Project for the construction of a dam and reservoir in the Koke'e and Alaka'i Swamp region of Kauai again is a live issue with an appropriation bill pending before the Congress. The plan calls for destruction of 1,000 acres of unique high country forest with the possibility of devastating consequences for thousands of acres surrounding the impoundment area in the Alaka'i Wilderness Preserve--the habitat of Kauai's endemic and endangered forest birds.

8. A Pre-Final Environmental Impact Statement on the H-3 Moanalua Valley section has been published in five volumes by the State Department of Transportation but copies are not easily available to the public.

9. The Society has responded in detail to the Preliminary Draft revision of Regulation 29 concerning game mammal hunting on Kauai. Officers have met with the Division of Fish and Game to discuss the effects on native habitats of this regulations 3, 27 and 30 that cover introduced deer and game mammal hunting on Molokai and Lanai.

10. Society officers have been attending the public meeting of the Natural Area Reserves Commission and the Animal Species Advisory Commission.

11. The plan for dredging Paiko Lagoon and construction of a waterbird refuge is underway.

12. William Mull has submitted a draft position paper to the Executive Board for review and comment on feral goats in the National Parks in Hawaii.

13. At the invitation of the Division of Fish and Game, several members took part in the Annual Waterbird Survey covering the Kahuku and North Shore Areas on January 14.

14. In an educational effort, some members have spoken to public school classes on Hawaiian ecosystems and birds.

Dr. Robert Eddinger presented a stimulating program on his field research on endemic honeycreepers in the Koke'e area of Kauai, conducted over two full breeding seasons. His doctoral thesis on the breeding biology of the Kauai 'amakihi, 'apapane, 'anianiau and 'i'iwi covered courtship behavior, nesting, incubation, and feeding of young. He was fortunate to find the first nests of the 'i'iwi with nestlings and the first nests of the 'akepa and Kauai creeper.

He cut eight miles of trails through the Kahuamāa Flats study area that is predominately 'ohi'a but with serious incursions of exotic blackberry--in some places growing 8-10 feet above his head. 'Anianiau and 'amakihi visited blackberry and the fruit of exotic passion vines (*Passiflora* spp.) was eaten by four endemic species....He found the mejiro (Japanese white-eye) to be a competitor for food with endemic birds.

Dr. Eddinger trapped all four of the introduced redents in the study area and found the Polynesian rat and the roof rat to be important predators. He found evidence of rat predation on an 'i'iwi nest with bones of nestlings and an adult bird. Feral cats are additional predators.

Following preliminary studies in the area in the 1967-68 seasons, Dr. Eddinger found 208 active nests in the 1969-70 seasons, 85 'apapane nests, 29 'anianiau nests,

and nests in smaller numbers of 'amakihi, 'i'iwi, 'elepaio, 'akepa, and Kauai creeper. All birds have a species specific courtship display and Dr. Eddinger described aspects of that behavior for several species. One problem he encountered was that young birds sometimes jump out of nests before they can fly when they are frightened. Through his research and thesis Dr. Eddinger has made a major contribution to our knowledge of endemic Hawaiian honeycreepers.

21 February 1972: ...Activities of the Society during the previous month were reviewed:

1. There has been a heavy return of signed filled petitions requesting that Axis deer not be introduced to the Big Island. Favorable replies to Society letters against the proposed movement of Axis deer have been received from Representative Mink and several members of the State Legislature.
 2. The Animal Species Advisory Commission has approved the introduction of the white-winged pheasant as a game bird. An administration bill proposed by the Division of Fish and Game to amend Act 195 that set up the Animal Species Advisory Commission for the protection of indigenous species from the harmful effects of exotic game will be introduced in the Legislature. The draft amendments appear to emasculate the purpose of Act 195 by giving "desirable species" equal status with native species.
 3. The draft position paper on feral goats in Hawaii's National Parks has been reviewed by Executive Board members with suggestions for revision and additions.
 4. A critique of the Flora and Fauna Sections of the Pre-Final Environmental Impact Statement on the H-3 Freeway, concerning Moanalua Valley was presented by William Mull at a meeting at McKinley High School on February 10. Copies will be sent to federal and State officials.
 5. William Mull prepared a report on recent birdlife observed at Salt Lake for the information of the Concerned Citizens of Salt Lake. This group seeks to limit further development around the lake and stop the filling-in of the lake to make a golf course.
 6. The Society will set up an exhibit again at the second annual Great Hawaiian Jubilee to be held in Kapiolani Park March 25-26.
- ...Mr. Robert Shallenberger presented the program on the Hawaiian Islands National Wildlife Refuge with a fine series of slides and sound recordings. A proposal to designate the Refuge as a Wilderness Area, with greater protection, is underway....Twenty-two species of seabirds are found in the Refuge. Four endemic and endangered species are year-round residents--Nihoa finch, Nihoa millerbird, Laysan finch and Laysan duck....
- Mr. Kaigler reported on the sale of HAWAII'S BIRDS. The 1967 edition is sold out. Nearly half of the printing costs of the 1971 edition have been recovered thus far by the quantity of book sales.

20 March 1972: ...The president summarized efforts undertaken by several members on conservation issues during the previous month.

Mr. Kaigler presented testimony on House Resolution 94, on Rights-Of-Way into Public Hunting Grounds, favoring increased hunting in these areas and equal access for non-hunters, on March 2.

William Mull gave testimony on March 8 on Senate Bill 1603, Protection of Agriculture from Pestiferous Birds, recommending that beneficial wildlife not be harmed by whatever control measures are used. The cost of controlling introduced seedeaters, the ricebird and house finch, is one good reason to carefully scrutinize proposals to bring in additional exotics in terms of their potential destructive effects.

Mr. Kaigler spoke in support of Senate Bill 1704, an appropriation bill for Paiko Lagoon, at a legislative committee hearing on March 13.

Mr. Kaigler will give testimony on House Bill 2144 on March 15. This bill would remove public input into Hawaiian Electric Company's application for transmission towers and power lines on Conservation District land.

Mr. Mull will give the Audubon Society's position on House Bill 2282 at a hearing on March 14. This bill would weaken the Animal Species Advisory Commission and remove

some protection given to indigenous species from exotic game introductions.

...William Mull reported on the forthcoming committee hearings on the Endangered Species bills that are identical: Senate Bill 1801 on March 16; House Bill 2222 on March 17. He suggested revisions to these bills for a stronger protection and conservation program for native species.

Mr. Steven Montgomery presented the program on the Dry Forest Ecology Project on the Big Island and Lanai during the summer of 1971. He introduced his coworkers on the scientific team, Glenn Spence and William Ruffin, who investigated an integrated interdisciplinary approach to plant and animal ecology in the leeward areas of the two islands. Of significant research value were the relationships found between indigenous vegetation and birds and the exotic introductions. The foreign plants, rats, sheep, goats and deer have drastic consequences for native ecosystems. Native plants, trees and birds in those ecosystems are vanishing through competition with exotic introductions.

RECOVERIES

Banded under G.C. Munro's Permit No. 5738

Band No. 41-724 225

Species: Black-footed Albatross (Adult)

Banded Date: June 1946 by CDR Gordon Rowe at Sand Island, Midway

Recaptured: 12 March 1972 at Frigate Point, Sand Island, Midway by PO2 Werner Rolz

Twenty-six long years of roaming the wide ocean. Unfortunately, the Society has given up the banding project.

ALOHA to new members:

Life - Thomas W. Reese, Dept of Psych & Educ, Mount Holyoke Coll, Mass. 01075

Junior - Bo Alexander, 2033 Ahualani Place, Honolulu, Hawaii 96822

Jimmy Tahan, 4431 Melbourne Ave, Los Angeles, Calif. 90027

Regular- William P. Alexander, 1434 Punahou St, Apt 1236, Honolulu, Hawaii 96822

Douglas T. Cheeseman, Jr., 20800 Kittredge Rd, Saratoga, Calif. 95070

Martha Chestem, 10105 Windstream Dr, #4, Columbia, Maryland 21044

Mrs. G.D. Frazer, 4735 Butterfly Pl, N.E., St. Petersburg, Fla. 33703

Ann L. Halsted, 3212 Loulu St, Honolulu, Hawaii 96822

Alice G. Horn, 650 Kukuila Loop, Honolulu, Hawaii 96825

Leroy Ing, 934 - 7th Ave, Honolulu, Hawaii 96816

James Jacoby, IBP-Hawaii Sec, Haw Vol Nat Park, Hawaii 96718

Patty Lu Kaliher, 41-485 Kalaniana'ole Hwy, Waimanalo, Oahu 96795

Marvin L. Sanders, 1580 Frear St, Honolulu, Hawaii 96813

James F. Temple, 700 Richards St, #2104, Honolulu, Hawaii 96813

Lorin W. Wong, Burton Hall, Room 201, Oberlin, Ohio 44074

Mrs. Nancy F. Yauger, 505 Kailua Rd, Apt C-106, Kailua, Oahu 96734

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OCTOBER ACTIVITIES:

8 October - Field trip to Kanehoa-Hapapa trail to study the native birds and plants. 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: Wayne Gagne, telephone William P. Mull, 988-6798.

9 October - Board meeting at McCully-Moiliili Library, 6:45 p.m. Members welcome.

16 October - General meeting at the Waikiki Aquarium Auditorium at 7:30 p.m. Panel discussion with National Audubon Western Representative Paul M. Howard on "Audubon Mission in Hawaii."

HAWAII AUDUBON SOCIETY EXECUTIVE BOARD:

President-LtCol Charles G. Kaigler, Vice-Pres.-William P. Mull & David Woodside

Secretary-Mrs. Mae E. Mull, Treasurer-Miss Christine Jones

Board Members-Wayne Gagne & Robert Shallenberger

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