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For the Better Protection
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The following Hawaii Audubon Society critique of the Draft Environmental Impact Statement on Route H-3 was sent to Dr. Shelley M. Mark, Director, State Department of Planning and Economic Development, Impact Statement Coordination Center on 24 July 1971. Information copies were sent to about 60 individuals, mostly appropriate government officials (both elected and appointed) on Federal, State and local levels on 30 July 1971 by William P. Mull:

Re: Draft Environmental Impact Statement for Interstate Route H-3 (oahu, Hawaii), dated June 1971, prepared by theState Highway Division, Department of Transportation, State of Hawaii.

This is a critique of the text of the draft impact statement. Our comments are limited to those parts of the statement that concern, or should concern, the prospective effects of H-3 on the natural environment, particularly in the Moanalua segment.

The National Environmental Policy Act of 1969 (Public Law 91-190) and A Procedure for Evaluating Environmental Impact (U.S. Department of Interior, Geological Survey Circular 645, 1971) stress the necessity that impact statements contain detailed and objective evaluation of project effects on natural environment. Our reading of the H-3 Draft Impact Statement shows it to be seriously deficient in that respect.

In general, the reasons for this deficiency are apparent in the tone and content of the presentation:

(1) Those who prepared it are proponents of the H-3 plan and are committed to justifying it, as indicated by the large amount of text given to ostensibly favorable investigative procedures and engineering conditions.

(2) By contrast, potentially adverse effects on the natural environment are either ignored or brushed aside with brief rationalizations that give little or no recognition to impacts on ecosystems and natural values as they relate to long-term human environmental values.

To illustrate, in the opening paragraph (p. 7) of the general discussion of the environmental impact of H-3 on Moanalua Valley, the text states that, aside from power lines and a jeep trail, "the valley is otherwise occupied only by the Moanalua Stream, wild vegetation, and the rubble remains of a pre-historic agricultural activity...." PL 91-190 and GSC 645 are designed to proclaim and implement a National Policy that values streams and "wild vegetation" as more than "only" things.

Moanalua Stream

There are two other brief references to environmental impact on Moanalua Stream. The first (p.10) mentions "...plans to construct a reservoir at the South Branch of Moanalua Stream." The second (p.10, also) mentions "...relocation, where required,

of Moanalua Stream." In one additional statement (p.17, under VEGETATION AND WILD-LIFE), the general comment is made: "Streams in the vicinity of the highway are generally intermittent, therefore supporting no appreciable aquatic life. All stream flow is to be maintained in any case." The text neglects to mention that the highway crosses the present course of Moanalua Stream over twenty times in its planned three-mile route up the valley, and no hint is given as to the amount of filling, re-routing, damming and channelization that will be involved -- nor of the character and extent of degradation that will result to the stream and its environs from this impact. To lump Moanalua Stream under the "generally intermittent" category hardly conveys the fact that it is the only drainage course for a narrow valley that receives rainfall almost every day of the year, totalling annually about 150 inches at its head and 50 inches at its foot. To say that such a stream, draining a heavily vegetated natural area, has "no appreciable" aquatic life would seem to warrant some explanation of what kind of aquatic life deserves appreciation. Overall, the statement fails to recognize that a stream is an integral part of the ecology of a valley and that disturbance to a stream can seriously disturb plant and animal life throughout the valley it serves.

Moanalua Valley Vegetation

The impact on natural vegetation in Moanalua Valley received similarly deficient treatment in the only two references to it. The first (p.9, under ENVIRONMENT IMPACT, GENERAL) cites the Bishop and Herbst survey of Moanalua Valley flora in January 1970 for the Damon Estate Trustees, in which those two botanists "listed over 150 flora, native to Hawaii in prehistoric times, growing in the valley, as well as numerous other species introduced in modern times." Cited also is Paul Weissich's March 1970 report, "to the Trustees recommending botanical conservation of the valley," and his January 1971 report to the Moanalua Gardens Foundation, in which he proposed "the complete redevelopment of Moanalua Valley as a garden," -- slightly elaborated upon in the tangential reference to "natural gardens" on page 10.

The second reference (p.16, under VEGETATION AND WILDLIFE) states:
The highway will displace some vegetation in each of its sections....In Moanalua Valley the portion of the valley to be occupied by the highway is one of repeated disturbance in the past by bulldozing and other clearing operations. Therefore, it does not contain the more valuable botanical specimens, to be found elsewhere in the valley, which are scheduled for preservation. The proposed development plan of the Damon Estate includes eradication of secondary growth, reintroduction of native species and introduction of species from other islands. The highway will generally occupy the area in which secondary growth is proposed to be removed; therefore, although the Damon Estate's program may require some modification in some areas due to the construction of the highway, in the main part the highway will offer no impediment to the Trustees program, and the proposed archeological and botanical redevelopment of the valley will be achieved.

In effect, then, the text gives the impression that H-3: (1) will remove only unimportant vegetation in Moanalua Valley and (2) will not interfere seriously with Damon Estate plans for botanical conservation of the valley. These are both questionable impressions.

In the first place, H-3 will destroy virtually the entire existing floral environment of the valley floor, which risks ecological disaster for the valley as a whole. To characterize the flora of the valley floor as "secondary growth" hardly portrays the fact that a significant element in that "secondary growth" is important endemic species like native koa (Acacia koa), which is regenerating in the form of healthy seedlings throughout much of the floodplain of the valley floor. Also not mentioned is the fact that remnant mature parent stock of endemic koa, 'ohi'a (Metrosideros collina), sandalwood (Santalum freycinetianum) and many other native species are scattered along the pathway of H-3. These are potential (and presently active) progenitors of the endemic floral environment that the Damon Estate seeks to encourage and preserve for the edification and enjoyment of future generations.

H-3 will eliminate this potential -- permanently.

In the second place, H-3 is "totally incompatible" with Damon Estate plans for preservation of Moanalua Valley as a permanent exhibit of floral, cultural and other aspects of native Hawaiiana, according to a published statement by the Moanalua Gardens Foundation, associated with the Damon Estate. This conflicts directly with two statements in the draft. The first (p.9) says that the State and the Trustees "agreed that construction of Route H-3 and the development of Moanalua Valley could be compatible...." The second (p.15) says "...the State is working closely with the planners for the Damon Estate so that the two facilities will compliment each other and be in harmony" -- referring to H-3 and the Moanalua natural park. There is a serious discrepancy here.

Other Factors of Natural Environment

Nowhere in the statement is there any discussion of potential impact of H-3 on air temperature and climate in Moanalua Valley, or of the consequent effects on the biota and ecology of the valley. Removal of a swath of vegetation the length of the valley, replacing it with concrete and running a stream of heat-producing vehicles over it indicates some environmental impact and would seem to deserve investigation and discussion.

Also not addressed in the statement are the unavoidable adverse effects of H-3 on existing patterns and movement of surface and subsurface water throughout the valley floor (aside from disruption to stream flow, discussed earlier). Since H-3 involves massive disturbance of the soil and topography the length of the valley floor, it would seem necessary to take into account the full effects of this disruption of the soil moisture environment upon which the flora and fauna depend.

Mentioned several times throughout the statement is the intention of planting cut and fill slopes and median strips. In view of the Damon Estate's objective of maintaining Moanalua Valley as a natural area, involving elimination of undesirable exotic plant species, would the plantings along the highway be endemic and indigenous species? If not, the introduction of additional exotics would be incompatible with the park plan and could have serious adverse effects on the natural ecology of the valley. Thus, discussion of the planting materials and prospective propagation and maintenance techniques would be appropriate.

Finally, the possible impact of H-3 on wildlife is dismissed (p.17) with the statement, "the undeveloped lands adjacent to the proposed highway are so vast that it is anticipated that the highway will have negligible effect on the land animals and birds." Neglected here is the fact that steep-sided, narrow valleys in Hawaii (like Moanalua Valley) are noteworthy as ecological units where unique kinds of flora and fauna have evolved in relative isolation. Moanalua Valley is a good example, as witnessed by the fact that Bishop and Herbst found unknown species of flora in their preliminary botanical survey of the valley in January 1970. Could there be undiscovered unique species of fauna there as well -- particularly invertebrate and micro forms? The story of adaptive radiation among land snails of Hawaii's wet valleys is a world classic among biologists. So also is a similar phenomenon among Hawaii's endemic birds. At least three endemic forest bird species are in Moanalua Valley: 'elepaio, 'amakihi and 'apapane. None of these is presently considered "endangered," but who can say that the upper valley is not also one of the last habitats for the rare and endangered Oahu creeper? Without purposeful investigation by competent scientists, who can anticipate that H-3 will have "negligible effect" on the valley fauna?

Conclusion

The draft statement has neglected a number of serious and important aspects of the prospective impact of H-3 on the natural environment and ecology of Moanalua Valley.

Recommendation

Before the final version of the H-3 Environmental Impact Statement is prepared,

thorough investigations by competent, objective scientific specialists should be made of all existing natural elements in Moanalua Valley, including their ecology. The results of these investigations should be analyzed in terms of the long-range environmental effects of H-3, and the findings should be incorporated in the Environmental Impact Statement according to the detailed guidelines in GSC 645.

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The following testimony on Item 5: Application for a commercial use permit by the Bernice P. Bishop Estate for hapuu harvesting on 3,000 acres of Conservation District land in the Kilauea Forest Reserve, Hawaii; public hearing on Friday, August 13, 1971, Conference Room, State Office Building, Hilo, was sent to Mr. Sunao Kido, Chairman and member of the Board of Land and Natural Resources, State of Hawaii on August 11, 1971 by William P. Mull: (Information copies were sent to local newspapers, appropriate government officials, and other individuals who are ecologically concerned.)

At the Board of Directors meeting of the Hawaii Audubon Society on August 9, 1971 it was the consensus of the officers present that the Society express its opposition to the subject Bishop Estate request for hapuu harvesting in the Kilauea Forest Reserve.

Responsible biologists in the Hawaii scientific community -- representing senior judgment in the fields of botany, zoology, entomology and ecology -- oppose the proposed hapuu harvesting on the grounds that such harvesting of hapuu in the area concerned could result in destruction of a significant and valuable native forest ecosystem.

The 5,000-acre Kilauea Forest Reserve is zoned Conservation District land because of its quality as a prime native forest. To disturb and degrade any part of that forest is to ignore the precise reason it has been assigned its special conservation status. To disturb 60% of it (i.e., the 3,000 acres in the Bishop Estate application) would be virtually to destroy it.

There is no question that commercial hapuu harvesting disturbs a forest, no matter how much care and selectivity is exercised in the operation. Aside from direct effects of removing economically feasible quantities of the plant itself, the attendant disturbance to the soil and plant life in the area in general from cutting of access roads and operation of equipment is bound to do great damage to the ground cover and understory of a near-virgin plant community. I was struck personally by the extent of such damage to a hapuu harvesting forest area I visited two weeks ago at the southern tip of the Kilauea Forest Reserve just north of the Thurston Lava Tube and adjacent to Hawaii Volcanoes National Park.

Under the most ideal natural conditions, it would take centuries for such an area to recover its original character. Under existing conditions in the general Volcanoes area, it could never regain its endemic ecological balance. Continuing disturbance in contiguous forest areas makes the Kilauea Forest Reserve vulnerable around its edges. Once the ground is disturbed and the deep shade of the hapuu understory is broken within the Kilauea forest itself, undesirable exotic plants will invade from their present footholds nearby, and the ecological integrity of the original forest environment will be destroyed forever.

Certainly the extensive, already-disturbed forests in non-Conservation status east of the Kilauea Forest Reserve can serve as the source of the hapuu raw products required by Niu Nursery. Can the short-range economic pittance that would accrue to the Bishop Estate and the State of Hawaii from harvesting hapuu in the Kilauea Forest Reserve be justified when weighed against the damage it will do to a prime native forest?

Thus we see no compelling reason, on any grounds, that the Kilauea forest must serve as a source for hapuu products. On the contrary, there seems every reason for preserving it and affording it even greater protection for its primary, long-range value as one of the few-remaining near-virgin forest environments of its type in the area. Accordingly, the Hawaii Audubon Society recommends that the Kilauea Forest Reserve not be used for hapuu harvesting.

We request that this statement be made part of the hearing public record. Since we are unable to attend the hearing in person, w e would appreciate having the statement read to thos e in attendance, if possible.

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HSPA TELLS OF PESTICIDE USE IN ISLE CANE FIELDS
Submitted by the Hawaiian Sugar Planters Association
(Reprinted from SURVIVAL, No. 9, July 1971, pp. 5-6)

Pesticide is an "umbrella" word covering all "economic" chemicals used in agriculture and for other general purposes.

The word "pesticide" is misleading to many persons. Too often it is incorrectly used as a synonym for insecticides -- only one group of chemicals falling within the pesticide family. Insecticides are economic and public health chemicals, some of which have come under close public scrutiny in recent years.

Economic chemicals are like medicinal chemicals. Properly used they are beneficial. Improperly used they can be dangerous. With economic chemicals, like medicine, it is a matter of proper use, size of dose, and how toxic the chemical is in the first place.

Rates of pesticides application in Hawaii, as elsewhere in agriculture in the U.S., are set by Federal authorities, based on carefully controlled field tests. To obtain Federal permission to use any particular economic chemical, Hawaii's sugar companies, through the HSPA Experiment Station, generally supply data from at least three to four years of field testing covering all of Hawaii's climatic variability where sugar cane is grown.

During the most recent five-year period examined (1964-68), pesticide use by sugar has declined annually.

There is a very practical reason for this. Sugar companies attempt to minimize use of economic chemicals because of cost considerations. For example, on an industry basis, a single application of herbicides is estimated to cost in excess of $1.5 million.

Another reason is that scientists have been successful in finding materials which are more effective for weed control but which are less toxic to man and other animal life. This has been a long-time goal as a means of protecting the health of sugar company employees.

Use of specific economic chemicals is constantly changing. This is because new, more effective chemicals are continuously being synthesized, tested, evaluated, approved by government for use, and when found suitable, introduced.

No insecticides are used in cane cultivation.

No insecticides are used in sugar fields in Hawaii. For all of its history the industry has relied on biological controls. HSPA Experiment Station entomologists have introduced many beneficial insect species as a means of controlling harmful insects.

Herbicide use

Weed control chemicals (herbicides) constitute 99.7 percent of all economic chemicals used in Hawaii's sugar industry, according to the State Department of Agriculture.

All herbicides used in sugar are either biodegradable or chemically degradable, mostly within two weeks to one year after application. No non-degradable weed control chemicals have been in use for more than 20 years.

Major use of weed control chemicals is in the field during the early stages of cane growth. Several weed control applications may be made. In addition, minor amounts of herbicides are used along field edges to keep them free of weeds.

Approximately 1,300 tons of herbicides are used annually by the industry. The chemicals are diluted with water before application. Since about half of Hawaii's cane acreage receives weed control treatment each year, this is about 21 to 22 pounds per acre for the 110,000 to 120,000 acres treated.

Fungicides

In certain geographic areas, fungus will attack seed cane (the cut pieces of stalk from which new crops are grown) and prevent germination -- unless a chemical is used to destroy the fungus before it can kill the seed pieces.

The most common method of seed treatment is to dip a container bin of seed cane into a tank containing a dilute mixture of an effective chemical mixed with water.

For years, throughout world agriculture where fungus problems exist, the only effective method of treatment was with mercuric-base fungicides. Cereals, corn and other seed, in addition to seed cane, required this protective treatment.

For nearly the past 10 years, HSPA Experiment Station pathologists searched for a substitute chemical, one without a mercuric base. Benlate, a degradable chemical which is non-mercuric, was found to be suitable. Registration from the Federal government for its use was obtained by DuPont February 2, 1971. It is now being introduced by the sugar companies.

Rodenticides

Estimates of total rat population in Hawaii have run as high as 10 million rodents. Rats are a public health concern as well as a destroyer of food crops. In sugar, rats cause damage estimated as high as $5 million a year. Damage is most severe in wetter areas. There have been many programs to control rats in Hawaii -- both in sugar and in the State generally. They have been only moderately effective at best. Rodenticides are used by about 10 sugar companies.

Newest hope for more effective control is zinc phosphide. It is rapidly degradable in soils. The State Department of Agriculture recently received a registration for its use from the Federal government. Its application for in-field use has only just begun. Although it meets all Federal and State standards, this new program will include concurrent ecological research as an added safeguard. Involved in this latter endeavor are HSPA, the University of Hawaii Environmental Quality Control, the State Department of Agriculture, and the U.S. Department of the Interior.

SUGAR COMPANIES USE PESTICIDES WITH CONCERN FOR ENVIRONMENT AND ECONOMICS
(Reprinted from NEWS from the sugar industry of Hawaii released 28 July 1971)

Hawaii's sugar companies exercise care in their use of pesticides to combat harmful field pests which, uncontrolled, could wreak havoc in thousands of acres of sugar cane. It is a matter of environmental awareness and economics.

Weeds, rats, the beetle borer and fungi are the companies' four big problems. Weeds will grow everywhere unless controlled. Rats, borers and fungi, while not universal, do present serious problems. To combat the four pests, Hawaii's sugar companies use herbicides, rodenticides and fungicides (members of the chemical pesticide family) and biological controls.

Herbicides control weeds in fields which would otherwise choke the growth of sugar cane. Without control, weeds could flourish at the expense of cane production, reducing it by as much as 70 percent. There are neither the people available nor the money to hire them to do the job by hand.

Rodenticides control rats which have been estimated to cause up to $5 million a year in damage to growing cane.

Fungicides help control fungus which, if unchecked, could prevent sugar cane seed pieces from germinating.

Biological warfare is waged by sugar companies to control the bettle borer. A fly imported from New Guinea is the main weapon. The industry has thus far always relied on biological rather than chemical control of harmful field insects. But the Hawaiian Sugar Planters' Association Experiment Station scientists are investigating integrated control approaches -- which conceivably could include chemicals -- as a means to improve control of the beetle and lessen crop damage and dollar loss.

(Only insecticides used at the present time are for fly and mosquito control in areas where they might become a public health problem. This work is done in

cooperation with the State Department of Health.)

More than 99 percent of the pesticides used in Hawaii's sugar cane fields are herbicides. These are applied early during the cane's two year growing period to prevent weeds from choking out the cane.

"Biodegradable" and "chemically-degradable" are the watchwords for herbicides used inside the fields.

Hawaii's sugar cane farmers, like farmers everywhere, must be careful because there can be no chemical contamination of food products. The Food and Drug Administration, now a part of the Environmental Protection Agency, and Federal and State departments of agriculture see to that.

Before a chemical can be used, it must undergo years of testing and then be approved and registered for use by the appropriate government agencies. Before an economic chemical is introduced into use in Hawaii's sugar cane fields, the companies, through the Experiment Station, generally supply data from at least three to four years of field testing under all possible soil and climatic conditions.

Like doctors, Hawaii's sugar farmers treat chemicals like medicine: properly used they are beneficial, but can be dangerous when used imporperly. In Hawaii's sugar industry, great pains are taken to make sure the use of chemicals is constructive and that they will not become a hazard to public health or environmentally harmful.

In addition to this environmental awareness, there is a very real concern with economics. Because of the cost of chemicals and the cost of applying them, the companies are especially careful not to use more than the minimum amount at the proper, most effective time. It is estimated to cost in excess of $1.5 million to make a single application of a weed control chemical industrywide.

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The Hawaii Audubon Society has received an interesting report by Dr. L. Earl Bishop and Derral Herbst, ON THE VEGETATION AND FLORA OF MOANALUA VALLEY, OAHU, February 1970, and the following is a review by Charlotta Hoskins:

This study reports the results of a two-week survey of the vegetational aspects of Kamananui (The Big Valley) and Manaiki Valley of Moanalua. These are discussed with an emphasis on the major plant communities and their distribution in the area, and are followed by a list of the species of plants found in the study. Three geographical parameters are correlated with the distribution of the plant communities: distance from the Ko'olau summit ridge, altitude, and topographical aspect (ridge, valley, slope). Distribution of rainfall is responsible for the first of these correlations; temperature is the factor dependent on the altitude; and the lay of the land is responsible for several climatological factors such as exposure to wind, drainage, soil depth and evaporation.

An appendix contains a key to a vegetation map of Moanalua Valley (unfortunately there was no map in the copy seen by this reader); a checklist of the plants of Moanalua and Manaiki Valleys; and an extensive plant list.

The writers feel that any action taken to conserve the natural resources of this area would be highly desirable; that the simplest method of preservation would be to set aside the valley and let plant succession occur naturally without the interference of outside factors; or a more desirable way would be to program a long range development of the area into a botanical garden. Then the valley would become an invaluable instructional, research and recreational asset to Hawaii.

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Noel L.H. Krauss sent in the following good news about the condor printed in the Los Angeles Times, 13 August 1971 by Dorothy Townsend titled: Nearly Extinct Condors May Live in Mexico.

The sighting of a rare California condor in a mountain wilderness in Baja California was reported Thursday, raising the hopes of scientists that there is a "backup colony" of the nearly extinct birds. Until the discovery in the Sierra San Pedro Martir, the total population of the largest living bird of prey was

thought to be fewer than 60.

For many years, two refuges in the Los Padres National Forest north and east of Santa Barbara have been considered the last known nesting places of the diminishing species.

The sighting occurred late in June on an expedition mounted by the Western Foundation of Vertebrate Zoology, whose members brought back feathers positively identified as those of a California condor....

Ed N. Harrison, president of the foundation and an ornithologist, announced the discovery at a press conference Thursday at the Los Angeles County Museum of Natural History, of which he is president.

"We have always been concerned that the California colony might be wiped out in a single disaster," Harrison said. The possibility of another colony in lower California alleviates the danger of sudden extinction in a single catastrophe....

"They colonize in the fall of the year in large flocks, sitting together on the tops of large trees." Harrison said. "They are very vulnerable. A hailstorm could kill them, for instance."

Dave Siddon, foundation research assistant who led the expedition, said there were four sightings in the mountains of San Pedro Martir, but that only one was verified. Accompanied by an agent of Mexico's Federal Department of Forests and Fauna, Captain Jose Samane Sanches, Siddon spotted the bird perched on a tree limb high on Diablo Peak.

"Below, in a stream, we found footprints," he said. "We counted at least 20 clear prints of the condor where the bird had obviously taken a bath or a drink."

...In earlier days the big vulture ranged throughout the United States north to the Columbia River and south into Mexico. But for many years the species has been considered extinct in Mexico....

Nesting in caves or among boulders in remote regions, the female condor lays only one egg every other year. The newly hatched condor stays in the nest seven months and remains partly dependent on the parent for another seven months as it learns to fly and forage. Although their life expectancy is normally between 30 and 60 years, the birds do not breed until full maturity which is the fifth or sixth year. Impressive in flight with its 9-foot wingspan, the bird is thought to be the model for the various "thunderbird" decorations used by Indians of the southwest and Mexico.

Harrison said there is "no doubt in my mind" that the bird sighted in Lower California is from an entirely separate colony and not a member of the Los Padres colonies which flew south of the border....

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Field Notes from Mary M. Roberts, 1711 Makiki Street, Honolulu, 31 July and 18 August 1971: Nesting Red-whiskered Bulbul

...The red-whiskered bulbuls have built another nest in the identical spot in the croton near my garage from which I removed their first nest. It was built without my being aware of it, and by the time I discovered it, July 14th, the female was already occupying it. At this writing July 31st, she is still sitting on the nest. I have noticed that she leaves it occasionally to join her mate briefly, who is constantly in my garden. I have also had as many as six... bulbuls visit my garden....

...Two baby bulbuls left their nest on August 14th. I hope they made it in spite of the many cats in my neighborhood. I am curious to know if the parents will build a third nest in the identical spot....

Field Notes from William W. Prange, Jr., 17 September 1971: Fairy Terns

I saw fairy terns among the trees makai of Kahala Avenue near Elepaio Street. Three birds were observed for about 10 minutes.

Field Notes from Charles G. Kaigler:

Correction: I have previously reported (THE ELEPAIO, Vol. 31, No.5, November 1970, pages 47-48) a White-throated Laughing Thrush (Garrulax albogularis) on Kauai last July, but have since concluded that the identification was too hasty and in error and that the birds actually observed were either the Greater Necklaced Laughing Thrush (G. pectoralis) or the Lesser Necklaced Laughing Thrush (G. monileger). The birds that I saw do not correspond to George Munro's description of G. albogularis in BIRDS OF HAWAII or to the description and photograph of G. albogularis in FINCHES AND SOFT-BILLED BIRDS by Bates and Busenbark. They do correspond to both the description and photograph of the Necklaced Laughing Thrush in the Bates and Busenbark book; to the description in Bertram Smythies' THE BIRDS OF BURMA which states that the two species G. pectoralis and G. monileger are indistinguishable in the field, an inch difference in length being the only distinguishing feature; and the description and sketch of the Greater Necklaced Laughing Thrush (G. pectoralis) in Dr. Boonsong Legakul's BIRD GUIDE TO THAILAND which distinguishes between the two by stating that the ear coverts of G. pectoralis are edged with black on both upper and lower borders as opposed to G. monileger which has only the upper edging in black. The birds that I observed, since confirmed and sketched by David Sears, Jr. of Kauai, plainly showed ear coverts edged with black on both upper and lower borders.

There is at present a pair of Necklaced Laughing Thrushes in the Honolulu Zoo and they correspond in detail to the birds that I saw in Kauai and to the sketch I received later from David Sears, Jr. So, according to Dr. Lekagul's book the birds were G. pectoralis; according to Smythies they could have been either G. pectoralis or G. monileger.

Any information on the release of either of these species on Kauai would certainly be helpful.

If you have any information concerning the thrush, please write to Kojima, 725-A 8th Avenue, Honolulu, Hawaii 96816.

Kahuku: August 28, 1971. Kii Pond is more mud flat than pond at this time, but the bird life is abundant. We counted over 160 coot, a majority being immature in all stages. There were at least five adults still on nests. Of the 37 stilt that we saw, about one-quarter to one-third seemed to be immatures. Most of the 30 plus black-crowned night herons were immature. We sighted four gallinule and counted over 300 ruddy turnstones, 50 plus golden plover, a dozen sanderling, 25 plus cattle egrets, one wandering tattler and four pintail. Ricebirds and mynahs were certainly in evidence as were noddys and red-footed boobies offshore. And to cap our morning we sighted a large sea turtle 25-30 yards offshore. The birds of Kii have quite obviously had a prolific nesting season and it would seem a tragedy to lose the pond to commercial development.

Apua Pond opposite Mokolii, being considered as a possible sanctuary in connection with Kualoa Beach Park, was visited about noon and held two stilt, seven turnstones, five or six plover and one sanderling. A goodly number of cattle egret also inhabit the immediate area.

On September 3, 1971, Mr. Alan Baldridge of the Hopkins Marine Station, Pacific Grove, California, called to report a ruff and two Wilson phalaropes on Kanaha Pond, Maui. I believe that this may be the first sighting of the ruff in Hawaii.

Mr. Baldridge is president of the Monterey Peninsula Audubon Society and was, until recently, the Central Pacific Coast editor of Audubon Field Notes. Although the ruff is a Eurasian resident, Robbins in BIRDS OF NORTH AMERICA reports it as a regular fall visitor to the Mainland. Mr. Baldridge is thoroughly familiar with the ruff from his trips to Europe. The ruff /Philomachus pugnax/ resemble the

Lesser Yellowlegs, but are much browner with no barring on the body under the wings. The bill is yellow at the base. Posture is erect. Large white oval patches at the base of the tail are a flight diagnostic.

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The following reprint is from the Seattle Audubon Society Notes, December 1970, sent in by David L. Olsen:

"With the rapid deterioration of our environment, the vanishing of our wildlife and the mounting pollution of our waters, a really dedicated conservationis must give up many a time-honored adage. He can no longer kill two birds with one stone, nor even argue that a bird in the hand is worth two in the bush. But, saddest of all in these times of unrest, he can no longer pour oil on troubled waters."

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ALOHA to new members:

Junior - Carolyn Phillips, 2213 Consuelo Ave, Santa Clara, Calif. 95050
Regular - Mary Musgrove, PO Box 95, Hawi, Hawaii 96719
Gene Renard, 3288 Pamakani Place, Honolulu, Hawaii 96822
William S. Robinson, 2560 Charnelton St, Eugene, Oregon 97405
Hanahauoli School Library, 1922 Makiki St, Honolulu, Hawaii 96822

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

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OCTOBER ACTIVITIES:

10 October - Field trip to study shore birds. 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: William P. Mull, telephone: 988-6798.
12 October - Board meeting at McCully-Moiliili Library, 6:45 p.m. Members welsome. (Please note date: Tuesday, 12 October)
18 October - General meeting at the Waikiki Aquarium Auditorium a t 7:30 p.m. Speaker: David L. Olsen
Topic: Hawaiian Islands National Wildlife Refuge and Endangered Species (color slides)

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