



## WILDLIFE ON MIDWAY ATOLL DURING THE WINTER AND SPRING OF 1980-1981

by Gilbert S. Grant

This paper presents bird, mammal, and turtle observations made incidental to other studies on Midway Atoll in the Northwestern Hawaiian Islands from 29 November 1980 to 23 May 1981. Many of the unusual sightings were documented with photographs that have been deposited in the Hawaii Audubon Society Rare Bird Documentary Photo File (hereafter *HAS RBDPF*). Salvaged specimens were deposited in the U.S. National Museum (USNM).

Grant and Pettit (1981) summarized their observations on Midway during the winter of 1979-1980 and the current paper is designed to provide only new information. I can add no new information to the species accounts of 1979-1980 for the Black Noddy (*Anous tenuirostris*), Golden Plover (*Pluvialis dominica*), Wandering Tattler (*Heteroscelus incanum*), Ruddy Turnstone (*Arenaria interpres*), and Sanderling (*Calidris alba*). These species were seen in 1980-1981 in numbers similar to those seen in 1979-1980.

Detailed site information is given for several of the more noteworthy records and nesting chronology data are presented to aid future observers on Midway.

### SPECIES ACCOUNTS

**Short-tailed Albatross (*Diomedea albatrus*):** Two were present on Sand Island this year. The adult-plumaged bird (same bird as seen in 1979-1980 by Grant and Pettit 1981, and since 1972 by others) was seen frequently between 12 December and late January. It was occasionally seen during the spring with the last observation occurring on 24 April. The early departure date of 20 January 1980 (Grant and Pettit 1981) may be questionable due to its sporadic presence in the spring of 1981. On 20 January 1980 bands were present on both legs but only the right leg carried a band in December 1980. It was usually found in Area 7 near bunker S7125. A second bird in immature plumage appeared briefly at the southeast end of Sand Island, on the south side of the harbor near the burned out remains of a F4 jet on about 10 February. It was photographed by RM2 Cindy Eggleston and a slide was deposited with *HAS RBDPF*. Repeated searches for it later were fruitless.

**Black-footed Albatross (*Diomedea nigripes*):** The first chick of the season hatched on 15 January.

**Laysan Albatross (*Diomedea immutabilis*):** The first chicks of the season hatched on 21 January. Pox virus was not evident this year in albatross nor tropicbird chicks. An

all-white (leucistic) chick was present on the fairway of Hole 9 of the golf course (about 200 meters from the 1979-1980 site of a white chick). The down was white and the feet, legs and bill were pink but the iris was slaty-gray. A leucistic adult (dirty white with pink bill and feet) was seen flying over Sand Island on two occasions (8 March and 13 April).

**Laysan x Black-footed Albatross:** Five hybrids were seen on Sand Island during the winter and spring; three were in the same areas as in 1979-1980 and were probably the same individuals (based on plumage characters and the presence of bands). The exact locations for future reference are: one near Building 545; one between BOQ "A" and BOQ "B"-Buildings 412 and 4203; two near bunker #S7125 in Area 7, the same location as the adult Short-tailed Albatross; and one in the wooded area just south (ca. 10 meters) of the intersection of Roosevelt Avenue with Henderson Drive.

**Wedge-tailed Shearwater (*Puffinus pacificus*):** A few were seen during the early winter (one each on 3, 7, 10 and 20 December). Many courting birds were present during April



Leucistic Laysan Albatross chick on 1 May 1981, Midway Atoll.

photo by G. S. Grant



and May on both islands but no eggs were found prior to my departure on 23 May.

Christmas Shearwater (*Puffinus nativitatus*): First arrivals seen on Eastern Island on 20 March. One pair was observed copulating under the *Scaveola taccada* shrubs on 20 March. Very few individuals of this species were found (pre-laying exodus) on 25, 28, and 30 March and 1, 4, and 22 April. Two were incubating eggs on 29 April. None were seen on Sand Island.

Bonin Petrel (*Pterodroma hypoleuca*): The first egg was laid on 11 January and the first chick hatched on 2 March. Rats took 130 plus eggs and two chicks in a colony of about 600 burrows near the chapel.

Sooty Storm-Petrel (*Oceanodroma tristrami*): One adult male with enlarged testes was found dead on 1 December (USNM # 577154) and another adult was found dead on a road on 4 February (USNM #598525), both near Cannon School on Sand Island. Efforts to find a nest were unsuccessful.

Petrel sp.: Many small storm petrel burrows were found under the lawns of the old housing area bounded by Bauer, Roosevelt, Henderson, and Radford Streets. Sporadic burrow excavations occurred throughout the spring but the nest chambers had not been lined by 23 May. Small petrel footprints were seen on the coral sand mounds at the burrow entrances. I was unable to see the birds despite repeated nocturnal searches and the use of a mist net. Thus the species is unknown to me. It is thought that the small burrows and the time of digging rule out Sooty Storm-Petrels which are winter breeders.

White-tailed Tropicbird (*Phaethon lepturus*): The carcass of a dead chick was found on 8 January 1981 in the same nest site where adults were photographed the previous winter (Grant and Pettit 1981). Identification was confirmed by Roxie C. Laybourne at the U.S. National Museum (USNM #598526). This constitutes the second nesting record for Midway. Up to three adults were seen between 6 January and 11 February 1981, circling overhead over Sand Island. One bird was seen sporadically on the ground at the nest site between 31 March and 10 May. The nest site is a concrete flower planter box at the front door of Building 422 on Sand Island. One adult was seen over Eastern Island on 9 May. Two were at the nest site on Sand Island on 10 May. An egg was laid and the chick hatched during the summer of 1981 (Russell Shea, pers. comm.).

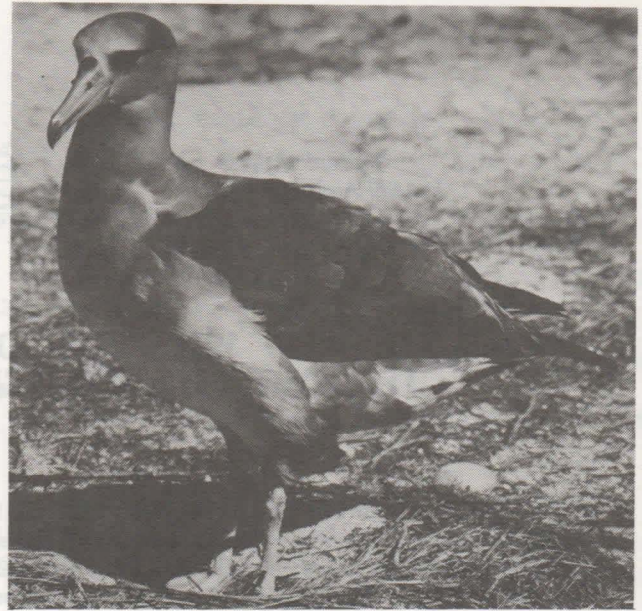
Red-tailed Tropicbird (*Phaethon rubricauda*): Nesting commenced earlier in 1981 than in 1980. The first egg was found on Sand Island on 7 February but a week-old chick was found on Sand Island on 12 March. Assuming a 44-day incubation period (Fleet 1974), this egg was probably laid about 20 January.

Masked Booby (*Sula dactylatra*): Craig Harrison, Mark Rauzon, and I found 4 pairs on nests, each with two eggs, on 30 March on Eastern Island.

Brown Booby (*Sula leucogaster*): Individuals were seen on Sand Island on 15 January, 3 and 8 February, and 29 April.

Red-footed Booby (*Sula sula*): Many were on eggs by 4 March on Eastern Island.

Great Frigatebird (*Fregata minor*): The first eggs (9) of the season were found on 4 March on Eastern Island.



Hybrid Laysan X Black-footed Albatross on 1 February, 1981, Midway Atoll.

photo by G. S. Grant

Cattle Egret (*Bubulcus ibis*): The bird sighted during the 1979-1980 winter (Grant and Pettit 1981) was not present this winter on either Sand or Eastern Island.

Pintail (*Anas acuta*): Two females were seen on 4 and 5 December in the concrete holding tanks on Sand Island.

Bristle-thighed Curlew (*Numenius tahitiensis*): Up to 30 (24 December) were seen on Sand Island and 1 or 2 were seen on Eastern Island during the winter. Most had departed by late April.

Long-billed Dowitcher (*Limnodromus scolopaceus*): Two were seen well and photographed (HAS RBDPF) on 8 January in the concrete holding tanks and the nearby runaway catchment basin on Sand Island. Long bill, single call note, and the closely or finely barred rectrices were seen. One was present in the same area on 13 January and two were there on 19 January. This is apparently the first record for Midway although one was collected on Kure on 3 October 1963 (Clapp and Woodward 1968).

Glaucous-winged Gull (*Larus glaucescens*): Two or perhaps three individuals were sighted and photographed on Eastern, Spit and Sand Islands. Sightings occurred on 6, 24, and 29 December and on 4, 6, and 30 March. Photograph was deposited with HAS RBDPF. The dried carcass of one was found at the extreme high tide line on the eastern shore of Eastern Island on 20 March. Roxie C. Laybourne identified the remains which were deposited in the U.S. National Museum (USNM #556319).

Black-legged Kittiwake (*Larus tridactyla pollicaris*): One adult in winter plumage was hand captured in oiled and emaciated condition by RMC W.H. Callender on 20 January at the north end of the north-south runway (called the "Rusty Bucket") on Sand Island (photo HAS RBDPF). It died one day later and was preserved as a study skin (USNM #598528). A second oiled adult was found inside the sea wall on the southeast side of Sand Island by CDR J.C. Barnes on



26 February. The preserved skin was also deposited in the USNM (#598527).

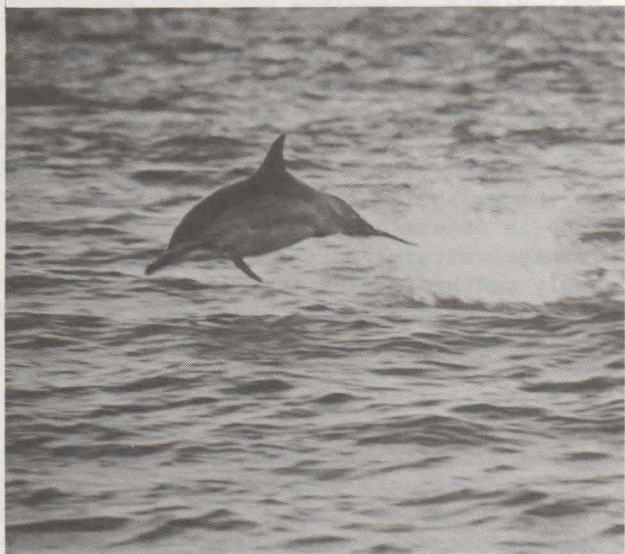
**Sooty Tern (*Sterna fuscata*):** The earliest arrival was a single bird seen over Sand Island on 10 January. Several hundred were spiraling over Eastern Island on 4 March but were not found on the ground on 4, 20, or 28 March. Several thousand were on the ground there on 30 March. A few eggs were found on Spit Island on 30 March but the first eggs on Eastern were laid between 4 and 22 April.

**Gray-backed Tern (*Sterna lunata*):** Some nests were found on Spit Island on 30 March and the first egg was found on Eastern Island on 1 April. Nesting population was 150-200. No nests were found on Sand Island. This species is easily overlooked among the thousands of Sooty Terns. Nesting on Midway may be irregular (Bailey 1956).

**Brown Noddy (*Anous stolidus*):** A few were present on Sand and Eastern Islands throughout the winter. Fourteen were seen on 2 December, 4 on 5 December, 1 on 12 and 14 December, 2 on 19 December, 1 on 21 December, 3 on 24 December and 11 on 27 March. Nests without eggs were found on Eastern Island on 2 May and the first egg was found there on 9 May. Thirty to forty nests with eggs were found in the ironwood-scaevola thickets near Frigate Point on Sand Island on 13 May. This species may have been overlooked during the winter of 1979-1980 (Grant and Pettit 1981).

**White Tern (*Gygis alba*):** Four eggs were found on Eastern Island on 30 March and 1 April. All of the eggs had disappeared by 29 April suggesting rat predation (no eggshells were found below the "nests" which is generally the case where egg loss is due to wind). Dense rat populations on Eastern Island probably account for the rarity of nesting White Terns and the absence of Black Noddy nests. Hundreds of White Tern and Black Noddy nests were present on Sand Island during late March.

**Parakeet Auklet (*Cyclorhynchus psittacula*):** A mummified carcass was found at the extreme high tide line



Pacific Spinner Dolphin (*Stenella roseiventris*) at Midway Atoll, 1 May 1981.

photo by G.S. Grant

on the south side of Sand Island on 16 March. The carcass was found before Typhoon Freda approached Midway. This specimen (USNM #556320) plus the four found in 1980 on Midway and Kure (Grant and Pettit 1981) suggest that small numbers of Parakeet Auklets may regularly winter this far south in the central Pacific Ocean.

**Rock Dove (*Columba livia*):** Three birds in different plumage were seen on Sand Island during the winter. Two birds (one dark, the other light gray) frequented the hanger and the Henderson Drive area while an all-white bird was seen by Mark Rauzon (pers. comm.) in Area 7. Frings and Frings (1960) reported a few hundred were present on Sand Island in 1958.

**Common Myna (*Acridotheres tristis*):** Widespread with population as high as or perhaps greater than in 1979-1980. Not seen on Eastern Island.

**Canary (*Serinus canaria*):** Island population was probably 200-400, similar to that in 1979-1980. A flock of 52 birds was counted near the new medical-dental building on Sand Island on 25 February.

**Squirrel (*Sciurus sp.*):** The individual seen in 1979 (Grant and Pettit 1981) has probably died. I did not see it in 1980-1981 nor did I receive reports of its presence on Midway.

**Hawaiian Spinner Dolphin (*Stenella roseiventris*):** Pods of about 15-30 individuals were seen inside the atoll between Sand and Eastern Islands on 1 April by Grant and Mark Rauzon and on 2 May by Grant. Photographs were deposited with HAS RBDPF.

**Monk Seal (*Monachus schauinslandi*):** Up to four individuals were seen hauled out on Eastern, Spit and Sand Islands. On Sand Island, seals are most frequently seen at Frigate Point. Two small pups were reported on Spit Island by sailors on 29 April. RMI Stanley reported seeing the pups nursing on that date. The pups were photographed (HAS RBDPF) at some distance (400 mm telephoto) on 16 May. Spit Island is technically "off-limits" to all sailors except visits by the members of the base game warden staff.

**Green Turtle (*Chelonia mydas*):** Single turtles were seen swimming on 2 and 14 December, and on 10 January. Three were seen on 5 December. Sightings occurred on the south beach, area 7 beach and near the fuel pier on the north shore. Additional turtles were seen in the Spring but the observation dates were not recorded.

#### DISCUSSION

Some of the "differences" in vagrant species during the two consecutive winters are striking. Few vagrant shorebirds and waterfowl were seen in 1980-1981. The large water catchment basin at the intersection of the two runways was lined with vegetation and contained many small fish in 1979-1980. By December 1980, it had been emptied, scraped clean, and relined, thus rendering it nearly useless for waterfowl. In addition, some vagrant waterfowl were collected for the USNM prior to my arrival on 29 November 1980.

Beachcombing for carcasses of exotic birds on oceanic islands is frustrating because very little of the avifauna which dies in the nearby waters apparently reach the shore. One is immediately impressed with the clean beaches (i.e., lack of bird carcasses). Over 500,000 birds use Midway Atoll (Harrison and Hida 1980) annually, yet relatively few dead albatrosses, petrels, or terns are found on the beaches.



Efficient scavengers offshore (bony fishes, sharks, and probably albatrosses) apparently allow little to reach the beaches while beach crabs rapidly bury and consume those birds which do reach the beach.

#### ACKNOWLEDGEMENTS

My stay on Midway Atoll was supported by National Science Foundation Grant PCM 76-12351-A01 administered by G.C. Whittow. I am grateful to CDR J.C. Barnes, Commanding Officer, for assistance during my stay at the United States Naval Air Facility, Midway Atoll. Special thanks are due to ENS D. Daughtery, RMC W.H. Callender, and the base game warden staff for invaluable aid. CDR Barnes, RMC Calender and RM2 C. Eggleston salvaged specimens or photographs of unusual species. I thank G. Balazs, R. Shallenberger, and C.J. Ralph for helpful comments on the manuscript.

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#### REPRINTS OF ARTICLES

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## CONVERT A NATIVE FOREST TO A EUCALYPTUS FARM?

One of the roads to energy self-sufficiency being explored on the Big Island is the growing of eucalyptus trees for biomass to be burned for the production of electricity. The Society has supported the use of marginal agricultural lands for demonstration energy farms. But the conversion of native forests to eucalyptus farms is not an acceptable land use practice. The following testimony was presented to the State Board of Land and Natural Resources on behalf of the Hawaii Audubon Society at a public hearing held in Hilo on March 24, 1982 on a Conservation District Use Application (CDUA) for Eucalyptus Biomass Farm Development at Puueo, South Hilo District, Hawaii Island:

The Hawaii Audubon Society applauds the use of developed agricultural lands for agricultural purposes. Growing eucalyptus for biomass is an agricultural enterprise. BioEnergy Corporation, a C. Brewer Company subsidiary, is conducting an experimental, demonstration project, funded by the federal Department of Energy. We are acquainted with Thomas Crabb, the project manager, and his staff. They are doing careful planning and well-thought-out experiments to determine the most feasible and inexpensive methods of growing eucalyptus. We have no problems with their operations thus far on the use of former cane lands and other lands in the Agricultural District.

However, we have serious reservations about this CDUA which is for the purpose of converting 341 acres of native forest in the Conservation District into agricultural plantation use.

BioEnergy is making their application to the wrong State agency. If the company is determined to destroy that forest for agricultural purposes, it should apply to the Land Use Commission for a boundary change from Conservation to Agricultural.

The 341 acres in question are still primarily a diversified native 'ohi'a forest with some koa present. Without question, there are exotics on the parcel, particularly strawberry guava--a serious pest in the forest. But this land has not been cleared before.

It is in the Resource Subzone where growing and harvesting of forest products is a permitted use. But does that mean one can clear-cut the whole parcel in



sections, entirely removing all vegetation and ground cover except for margins along stream banks? We do not believe this is the intent of the Resource Subzone-- to strip forest lands and plant agricultural crops.

We object to the proposal's intent, to bulldoze away a native forest for experimental purposes. Native forest, including a disturbed native forest such as this one, is habitat for a wide spectrum of endemic plants of many species. It is home for endemic spiders, insects and land snails. It is the habitat of native birds. It is a community of plant and animal life. This should not be destroyed for experimental purposes. If the project fails, the forest is still lost forever. Native forests cannot be reestablished once you have planted a eucalyptus crop on the ground.

We object to federal funds being used to bulldoze a native forest for experimental use.

There are other serious implications if this forest destruction project is approved. We believe that permitting this use on Conservation District land will establish a dangerous precedent. A huge parcel of former Brewer-owned forest land, 30,000 acres or so, is mauka of these 341 acres. It was purchased by World Union, a Hong Kong company, several years ago. World Union representatives have been making inquiries and overtures on developing some parcels of that forest-- converting that high quality native 'ohi'a forest to eucalyptus plantations.

Some of that World Union land is Hilo watershed--with very high rainfall and the hazards of rapid erosion when the forest cover is removed. If you permit BioEnergy to bulldoze this 341 acre forest, could you deny World Union's applications for eucalyptus plantations?

The Hawaii Audubon Society recommends that this CDA be denied and that BioEnergy Corporation consider applying to the Land Use Commission for a change in district boundary land use, or using other developed agricultural lands.

BioEnergy Corporation is in the process of preparing an environmental impact statement (EIS) on the project. The Board of Land and Natural Resources will make its decision on the permit sought after completion of the EIS process.

*Mae E. Mull  
Big Island Rep.*

## BIG ISLAND CATTLE EGRETS

The Board of Directors of the Hawaii Audubon Society approves of the U.S. Fish and Wildlife Service plan to solve the Hilo Airport/Lokoaka Pond cattle egret problem. The Board recognizes that the cattle egret is an introduced species which has become a pest in some wetland ecosystems in Hawaii, as well as a hazard to aircraft operations at General Lyman Field. Consequently, control of cattle egrets is necessary in this case. The Board makes this recommendation on the condition that any control procedures employed are in compliance with appropriate State and Federal environmental laws, rules, and regulations.

*HAS Board of Directors*

## CONSERVATION AWARD TO H.P. LITTLE

Henry P. Little of Kailua, Hawaii, special representative of the Nature Conservancy, is one of 21 individuals who have been chosen nationwide to receive Gulf Oil Conservation Awards for 1982. The awards are presented to ten professional and ten citizen winners for dedicated service in the field of renewable natural resources. Mr. Little is working to protect the last remaining habitats for endangered native species of Hawaiian forest birds. He has acquired a conservation easement to a major tract on Molokai and organized a Board of Trustees of prominent Hawaii scientists and conservationists. Prior to going to Hawaii, he served as Western Field Director for the Conservancy, leading a successful fight to protect Santa Cruz Island in California, 4400 acres of the Big Sur coast, Silver Creek in Idaho, and the McCloud River in California.

## PACIFIC SEABIRD SYMPOSIUM

The Ninth Annual Meeting of the Pacific Seabird Group will be held December 1-3, 1982, at the Hawaiian Regent Hotel in Honolulu. Symposium topics will be (1) the ecology of tropical seabirds and (2) human disturbance and effects of predation on seabirds. The symposia will be one-half day each. In addition, there will be several paper sessions related to Pacific seabirds. People interested in receiving more information on this meeting should contact Stewart I. Fefer, U.S. Fish and Wildlife Service, P.O. Box 50167, Honolulu, Hawaii, 96850.



## ALOHA TO NEW MEMBERS

The Society welcomes the following new members and hopes that they will join in our activities to further the protection of Hawaii's native wildlife:

Joint with National: Dawn E. Bellinger, Honolulu; Patricia W. Bickel, Honolulu; J.B. Brenner, San Francisco; W. Briant, Honolulu; Sharon Fisher, Honolulu; Jason Kahn, Paia; George Leong, Honolulu; William Merwin and Dana Naone, Haiku; Alma Olarania, Kaneohe; Dan and Tana Sholly, Hawaii National Park; Jeff and Claudia Wallace, Laie; Dorothy Zoller, Hauula.

*Kammy Wong*

## FREE COOKIES

'Elepaio needs typists to help with preparation, as well as people who would like to follow and write up current conservation issues. Call Peter Galloway at 988-6522 or Marie Morin at 533-7530.

## SCHOLARSHIPS ANNOUNCED BY THE NATIONAL AUDUBON SOCIETY

A scholarship program for high school, college and graduate school students has been announced by the National Audubon Society Expedition Institute. The 1982 scholarships are designed to defray a student's expenses while attending school, or for a project or summer program of the student's choice. Application forms and instructions are available until August 15, 1982 by sending a self-addressed stamped #10 envelope to: Scholarship Committee, National Audubon Society Expedition Institute, RFD #1, Box 149B, Lubec, Maine 04652. The financial aid and multiple scholarship grants, ranging in amounts from \$100 to \$200 are made available by Audubon to help young people take advantage of learning opportunities throughout the nation.

Recipients' reactions to the financial assistance have been positive. They report that the Audubon Expedition Institute scholarships have made possible the fulfillment of their immediate education and career goals such as attending schools, summer camps, workshops and travel programs, photographing endangered Alaskan wildlife, interning in conservation organizations, or participating in the Expedition Institute.

## JULY PROGRAM:

### HAWAII'S SEABIRDS

The Monday, July 19 general meeting at McCully-Moiliili Library will feature a slide program by Dr. Ted Pettit, a seabird physiologist at the University of Hawaii, Manoa. Dr. Pettit will focus on the natural history of some of Hawaii's fascinating seabirds.

The meeting begins at 7:30 p.m. Everyone is cordially invited to attend.

## JULY FIELD TRIP:

### HAIKU VALLEY

On Sunday, 18 July the Hawaii Audubon Society will conduct a field trip to hear and see Haiku Valley's birds. Interested persons can meet at 7:30 a.m. next to the State Library on Punchbowl St., or call the leader, Tim Burr, at 254-3905 to arrange a Windward side meeting place. Bring water, lunch, binoculars, rain-gear, and interested friends.

## AUGUST 'ELEPAIO PASTE-UP

The August edition of the 'Elepaio will be laid out and pasted-up beginning at 5:30 p.m. on 17 July (Saturday) at the home of Marie Morin, 1415 Victoria St. #1515. Call Marie at 533-7530 beforehand. All members are welcome to come; no experience necessary.

## PROGRAM CHANGE EXPLAINED

Originally Hawaii Audubon Society had scheduled a brand new film produced by the Society for Hawaiian Archaeology entitled "Hawaii's Endangered Past: A Matter of Time", for our regular June monthly meeting.

This movie was premiered on 25 May 1982. At that showing, members of the Protect Kaho'olawe 'Ohana expressed concern that they were not mentioned in the film and made a strong request that changes be made in the film.

The Society for Hawaiian Archaeology is considering this request. They postponed their schedule of showings, and Hawaii Audubon Society substituted a program on Kawainui Marsh in its place.

We are sorry for any inconvenience this change in program may have caused our members.

*Leilani Pyle*



## NOTE TO CONTRIBUTORS TO THE 'ELEPAIO

All contributions concerning natural history and conservation are welcomed, especially those pertaining to the Pacific area. The Editorial Committee wishes to encourage especially material from the various Pacific Islands, such as the Trust Territories, Guam, Samoa, and other areas. Articles on all natural history subjects are solicited.

It would facilitate the processing and review of your contribution if it could be submitted typewritten and double spaced, although this is not a requirement. All articles of a scientific nature are sent out for comments to at least two reviewers familiar with the subject.

To insure proper handling and rapid publication of your contribution, it should be mailed to the co-editors, and sent to Marie Morin, 1415 Victoria St., #1515, Honolulu, HI 96822.

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New members who send in dues between January and September will receive, if they request them, all back issues of the 'Elepaio for that year. After September, the dues are counted for the following year.

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### CALENDAR OF EVENTS

- July 12 (Monday). Board meeting at the home of Norris Henthorne, 2832 Kihei Place #3, Honolulu, at 7 p.m. (734-7562).
- July 18 (Sunday). Field trip to Haiku Valley. Meet at 7:30 a.m. on the Punchbowl St. side of the State Library. For more information or for directions to the Windward side meeting place, call the leader, Tim Burr, at 254-3905.
- July 19 (Monday). Regular meeting, featuring *Hawaii's Seabirds*. McCulley-Moiliili Library at 2211 S. King St., Honolulu, at 7:30 p.m.

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