

'ELEPAIO

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INTERISLAND MOVEMENT OF A YOUNG HAWAIIAN MONK SEAL BETWEEN LAYSAN ISLAND AND MARO REEF

by Patricia A. Johnson, Brian W. Johnson
and Leighton T. Taylor

Movements of Hawaiian monk seals (*Mona-chus schauinslandi*) from one haul-out area to another have been documented (A. M. Johnson 1979, Schreiber and Kridler 1969), including round trips between Laysan Island and Pearl and Hermes Reef, and Lisianski Island and Kure Atoll. The animals involved were marked for individual recognition using metal or plastic tags attached through the interdigital webbing of the hind flippers. Such tags were extensively applied in the Northwestern Hawaiian Islands from 1957 through 1972. A total of 846 seals, consisting of 562 pups and 284 older seals, were tagged during this period (Johnson 1979: Table 8). Use of the tags required disturbance to the animals during the tag application process, and possibly during resightings. No metal or plastic tags have been used since 1972. Marking techniques of a less disturbing nature are being sought. During an observational study of monk seals on Laysan Island from 1977 to 1980 (by BWJ and PAJ) it has been shown that the application of a commercial preparation (Lady Clairol Hair Lightener) to sleeping seals provides an excellent identifying mark that will remain visible for up to a year. This mark can be applied and resighted with minimal disturbance to the animal (Johnson and Johnson 1978). The efficacy of this tagging technique was demonstrated when one of us (LRT) sighted a marked monk seal at Maro Reef, some 100 km to the east of Laysan Island where the animal had originally been marked.

(using an outboard powered inflatable boat), two Hawaiian monk seals were observed swimming in the area of the log which was beached on a coral reef. The larger of these two seals was tentatively identified as a female; the smaller one was seen to be a male and bore two large squares on its right side (Fig. 1). This sighting was made on 17 June 1979.

Comparison of Fig. 1 with Laysan Island study records indicated that this was a young male monk seal code-named "Two Square." He was originally marked on 1 August 1978 (under MMPA/ESA Permit No. 180). "Two Square" was seen regularly on Laysan Island during 1978 and 1979, including sightings on 20 and 21 May 1979. The next sighting of the animal was 17 June 1979 at Maro Reef. "Two Square" had returned to Laysan Island by 21

Maro Reef is a large, submerged atoll located at approximately 25°25' North and 170°35' West. There are extensive areas of reef which are barely awash at low tide; but only a single rock (less than 10 m² in size) emerges above the sea surface. Maro Reef is a study area for investigations on the trophic ecology of reef fish and sharks, sponsored by the University of Hawaii Sea Grant College Program. During a field trip to this area in June 1979, a large drifting wood log in excess of 1.5 meters in diameter was sighted from the *RV Easy Rider*, a research vessel under charter. From a distance it could not be determined that this was a log, and it was assumed to be an abandoned fishing boat. Upon investigation by LRT

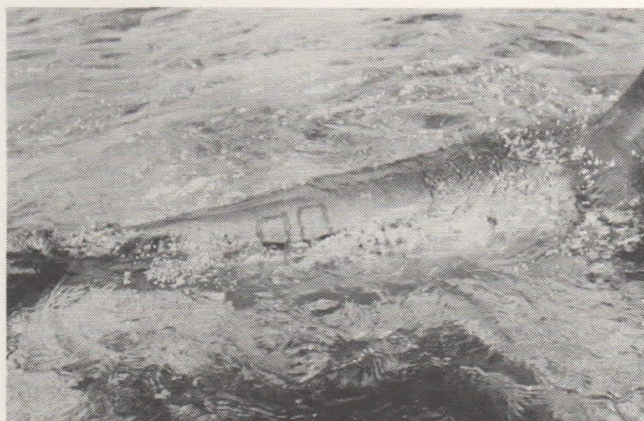


Figure 1. The "Two-square" pattern formed by the application of Lady Clairol hair lightener. This picture was taken on June 17, 1979. The seal's head is to the right of the photo. Photo by L. Taylor

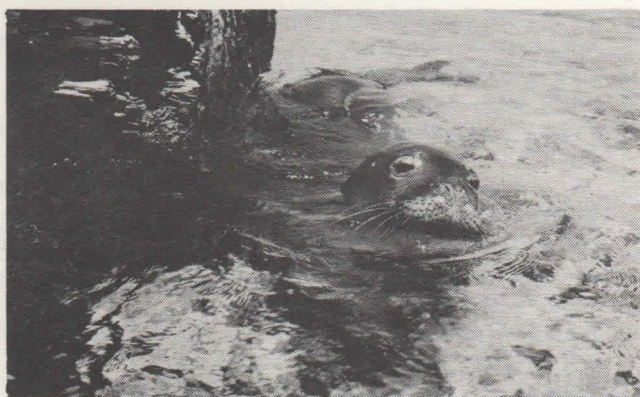


Figure 2. The marked monk seal was in the company of a larger female. Both seals were in the vicinity of this large coniferous log marooned on a shallow reef.

Photo by L. Taylor
June, making the 100 kilometer trip between Maro Reef and Laysan Island in four days or less.

This is the first documented round trip from Laysan Island to Maro Reef. This record is noteworthy because Maro Reef has no emergent land or beaches for haulout areas. Therefore, the visit to Maro Reef might be for the purpose of feeding. Gary Naftel, operator of the research and fishing vessels *RV Easy Rider* and *FV Easy Rider Too*, has observed monk seals in the vicinity of his vessels during fishing activities and surmises that the animals are feeding at Maro Reef (Naftel, pers. comm.). Sightings have also been reported by personnel of the National Marine Fisheries Service vessel *RV Townsend Cromwell*.

Although these sightings have been anecdotal and non-quantitative, they suggest that Maro Reef may be of greater importance to the Hawaiian monk seal than previously had been thought.

The value of the Lady Clairol bleach mark is also demonstrated by this sighting. If the animal had been tagged with a conventional metal tag as used in previous studies, it would have been difficult or impossible to read the tag number. The clearly visible bleach marks allowed the recording of a valuable resighting without disturbance to the seal.

ACKNOWLEDGMENTS

We acknowledge the field assistance of Captain Gary "Skip" Naftel and the crew of the *RV Easy Rider*; and Ancel Johnson, William Gilmartin, George Balazs, Robert Shallenberger and C. J. Ralph for review of this note. Research was supported in part by the Marine Mammal Commission, the National Marine Fisheries Service, Honolulu Laboratory; the Office of the Marine Affairs Coordinator, State of Hawaii; and the University of Hawaii Sea Grant College Program under Institutional Grant No. NA79-AA-D-00085.

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A NEW SANDPIPER FOR SAMOA

by Terry Teppen, C. Muse, and S. Muse

On 7 February 1980, at the sand and rock shoreline in front of the village of Malua in Western Samoa, we saw a small sandpiper foraging among the rocks and driftwood at the water's edge. We were immediately impressed with its resemblance to the familiar Spotted Sandpiper (*Tringa macularia*) in winter plumage, which is found throughout North America.

We watched the bird for over an hour under cloudy skies along the 300-meter shoreline. It was flushed from time to time but always resumed feeding after flying only a short distance. Its feeding activity was quite animated and brisk, with characteristic bobbing and dipping of the neck and tail. Occasionally, it paused, motionless.

It was about two-thirds the size of nearby Wandering Tattlers (*Heteroscelus incana*), and was judged to be about 18 cm (7 inches) in length. The back was uniform brownish, slightly lighter on the nape and crown, and even lighter on the sides of the head. The sides of the breast were also light brown and faded into the pure white of the belly and flanks. It had a rather distinct white orbital ring but no outstanding white eyestripe. The legs were grey-green. The bill was dark brown and slightly longer than the head. In flight, white wingbars were visible on the mid-wing and the outer tail feathers were barred. Its flight was stiff and the wing-beats shallow. It did not call.

A second bird was seen flying up the shoreline later, while the first bird was perched on a concrete pile. On subsequent visits we did not find the birds, but on 15 February we saw two birds in flight at the Mulinu'u Lagoon near Apia, some 24 km (15 miles) from Malua. Both birds seemed to have the same markings as the sandpiper, but could not be positively identified.

The birds were clearly either the Common Sandpiper (*Tringa hypoleucos*) of Asia, or the Spotted Sandpiper (*Tringa macularia*) a North American bird. These two species are extremely similar in winter plumage, differing only slightly in the pattern on the wing coverts and coloration of the feet and legs. The Eurasian species migrates from Eastern Asia to Australia and could, therefore, reach some Pacific islands enroute.

The available literature was insufficient to provide positive identification; however, the observers agreed that, based on

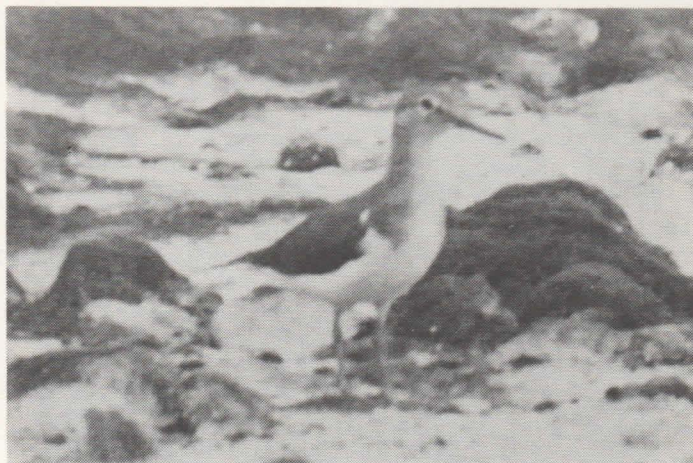


Photo of new *Tringa* sandpiper at Malua, Western Samoa, on Feb. 7, 1980.

the literature, location, and field markings, it was in all probability a Common Sandpiper. This is a first recorded and documented sighting for the Samoan Archipelago of either of these sandpipers and is an important record.

Upon returning to the U.S., several experts on seabirds and shorebirds in both America and New Zealand were provided with slides and field notes on the bird. There were differing opinions, but most agreed with the preliminary identification of the original observers. All agreed these two species are all but indistinguishable in winter plumage in the field.

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REPRINTS OF ARTICLES

Reprints of articles in the 'Elepaio are available to authors and others at the following rate: for 100 copies, \$10 per page of the article. For each additional 100 copies, add \$3.00 per page.

PLUMAGE CHARACTERISTICS OF THE 'IO: A REQUEST FOR OBSERVATIONS

by Curtice R. Griffin and Peter W.C. Paton

The 'Io or Hawaiian Hawk (*Buteo solitarius*) is a medium-sized, broad-winged hawk endemic to the Hawaiian Islands. The species is the sole resident accipiter in the archipelago. The 'Io occurs mainly on the island of Hawaii where it is widely distributed. It is locally common on the slopes of Mauna Loa, on both the windward and Kona coasts, and to a lesser extent on Mauna Kea (Berger 1972). The 'Io occurs at both low and high elevations.

Light and dark color phases of the 'Io have been described (Munro 1944); however, little information is available regarding immature plumages. The purpose of this report is to provide a key by which immature and adult hawks may be distinguished in the field (Table 1). We also encourage observers to note the plumage characteristics and location of any 'Io sighted. Observations of hawk behavior such as: carrying twigs in their bills or talons; making steep dives with their legs dangling; hunting and carrying prey; or aggressively displaying towards humans are of special interest to us. The location of nest sites, past or present, are also of vital interest. To report observations of 'Io, please contact the U.S. Fish and Wildlife Service, P.O. Box 44, Hawaii Volcanoes National Park, HI 96718, or telephone 967-7565.

We do not know how long it takes for immature hawks to attain adult plumage. First year birds can be positively distinguished from subadults only in the hand by the presence of even-aged flight feathers (primaries, secondaries, and rectrices). We have observed a few intermediate plumages between light and dark forms which may not correspond with the key in Table 1. The two color phases do not indicate either age or sex. As in other birds of prey, females are larger than males. A female 'Io is about 30% larger than a male. In the field, this size difference is most apparent in the tarsi and feet, with those of a female being stockier than a male's. However, this is a difficult field characteristic to master without much experience with the species. Juvenile hawks recently fledged from the nest are usually larger and heavier than their adult counterpart. Thus, a small hawk is not necessarily a young bird. Two characteristics most helpful in identifying recently fledged young are: (1) down feathers protruding from the top of the head and the sides

TABLE 1:
PLUMAGE CHARACTERISTICS OF IMMATURE AND ADULT

LIGHT PHASE (predominately white breast)	
<u>First Year * and Subadult</u> (Fig. 1)	
-	Head and chest buff white often with rust tinge on white feathers.
-	Cere (membrane at base of upper mandible), legs, and feet blue/green.
<u>Adult</u> (Fig. 2)	
-	Head dark brown, chest white with varying amounts of brown flaking on sides of breast and throat.
-	Cere bright yellow; legs and feet pale yellow.

DARK PHASE (predominately dark brown breast)	
<u>First Year and Subadult</u> * (Fig. 3)	
-	Completely dark brown body. Upper chest and head with varying amounts of tawny mottling.
-	Cere, legs, and feet blue/green.
<u>Adult</u> (Fig. 4)	
-	Uniform dark brown body.
-	Cere bright yellow; legs and feet pale yellow.

*First Year = up to one year old.

of the breast; and (2) the high pitched wail of a food begging call.

ACKNOWLEDGMENTS

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Figure 1. First year/subadult light phase 'Io plumage.



Figure 2.
Adult light
phase 'Io
plumage.



Figure 3.
First year/
subadult
dark phase
'Io plumage.



Figure 4. Adult dark phase 'Io plumage.

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AUDUBON OFFERS ENVIRONMENTAL STUDIES SCHOLARSHIPS

The National Audubon Society Expedition Institute today announced that it is making scholarship funds available to graduate, college, and high school students who are interested in the subjects of outdoor education or environmental studies. Financial aid, in varying amounts, will be awarded by July 31, 1981 and may be used for any Audubon educational program or other school, college, or conservation education programs. Application forms may be obtained by the student writing to the National Audubon Society, Expedition Institute, 950 Third Avenue, New York, New York 10022.

LIHUE, KAUAI, CHRISTMAS COUNT

by Winona Sears, compiler

Areas	1	2	3	4	5	6	7	Total
White-tailed Tropicbird	-	-	4	1	-	-	-	5
Brown Booby	-	-	-	4	-	-	-	4
Cattle Egret	6	11	194	2	15	-	61	289
Black-crowned Night Heron	-	1	7	-	2	-	-	10
Brant	1	-	-	-	-	-	-	1
Hawaiian Duck (Koloa)	2	-	5	-	-	-	-	7
Pintail	-	-	120	-	-	-	-	120
Canvasback	-	-	3	-	-	-	-	3
Lesser Scaup	-	-	1	-	-	-	-	1
Red Junglefowl	15	-	-	-	16	5	-	36
Ring-necked Pheasant	-	-	13	1	-	-	4	18
Com. (Hawaiian) Gallinule	20	-	17	-	8	-	-	45
Am. (Hawaiian) Coot	4	-	184	-	2	-	-	190
Am. Golden Plover	44	2	144	7	8	2	2	209
Black-bellied Plover	-	-	1	-	-	-	-	1
Ruddy Turnstone	-	17	17	-	-	-	-	34
Wandering Tattler	2	-	1	1	-	-	-	4
Black-necked Stilt	10	-	19	1	-	-	-	30
Ring-billed Gull	-	1	-	-	-	-	-	1
Rock Dove	20	-	-	4	-	-	-	24
Spotted Dove	12	7	48	32	7	3	4	113
Barred Dove	29	13	196	87	37	154	17	533
Short-eared Owl (Pueo)	-	-	-	-	-	-	2	2
Mockingbird	2	-	-	17	3	3	8	33
Melodious Laughing Thrush	8	8	3	-	4	2	-	25
Shama	13	4	1	9	2	2	-	31
Com. Myna	78	74	202	142	20	46	51	625
Japanese White-eye	47	18	24	132	39	18	47	325
Spotted Munia	54	14	159	53	12	21	20	333
Black-headed Munia	-	-	4	22	6	-	40	72
House Sparrow	15	59	7	87	-	54	25	247
W. Meadowlark	8	-	12	4	5	-	12	41
Red-crested Cardinal	2	-	-	10	-	-	-	12
Cardinal	25	2	2	25	10	13	4	81
House Finch	40	8	3	39	-	10	4	104
No. of Species	23	15	27	21	17	13	15	35
No. of Individuals	457	239	1391	692	164	333	301	3610

Areas covered

1. Wailua River to north side of Lihue, including airport road and holding ponds west to Lihue.
2. Nawiliwili Harbor, Huleia Stream, Puhi and KCC grounds
3. South of Lihue to Knudsen Gap Road, including Kipu ranch and Waita Reservoir
4. Omao Road, Koloa town and Poipu.
5. Pacific Tropical Botanical Gardens
6. Lihue town
7. Kalaheo, one feeding area plus Kukuioolono Park

Fourteen observers were in 8 parties on 20 December 1980, plus four at feeders. 21° 59'N 159° 26'W, center near Halfway Bridge; area and habitat coverage as described in 1972; elevation 0 to 1000 ft. December 20, 6:30 a.m. to 5:15 p.m.; A.M. mostly cloudy; P.M. mostly clear. Temperature 66° to 83° F. Wind W, 2-15 m.p.h. Wild food crop excellent. Total party hours, 41 (17 on foot, 24 by car) plus 20 at feeders; total party-miles, 156 (10 on foot, 146 by car). Seen in the count area during count week but not on count day was Erckel's Francolin.

Participants were: Janet and Stuart Bradley, Sophie Cluff, Madeline Emrick, Zipporah Douglas, Bernice Fehr, Mary and Tony Guerrero, Brethe Hansen, Eleanor Humphreyville, Jonathan Reed, David and Winona Sears, Don Sejkora, Virginia Siewertsen, Dibbie Stern, William Theobald, and John Townsend.

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A PAINLESS WAY OF CONTRIBUTING TO THE NATIONAL AUDUBON SOCIETY

To paraphrase an old saying: You can't give your cake to National Audubon and eat it, too. But you can come very close to doing that by joining the society's newly revised Life Income Fund. You can make a gift to the fund now, take a tax deduction for it this year, and continue to enjoy its income - plus some other advantages - as long as you live (or as long as your designated beneficiary lives). Upon your death (or Beneficiary's death) the money will go to the National Audubon Society and build up its endowment for future efforts to protect wildlife and wilderness.

There are additional financial advantages to this method of supporting the society's work. You get the benefit of professional handling of invested funds (the Program is administered by the Morgan Guaranty Trust Company of New York), and there are also capital gains and estate tax benefits.

For further information, write Gomer Jones at National Audubon Society headquarters, 950 3rd Avenue, New York, N.Y. 10022.

MIDWAY ATOLL COUNT

by Gilbert Grant, compiler

The Christmas Count on Midway Atoll, Hawaii was centered on Sand Island at the intersection of E-W and N-S runways and included Sand Island only. Habitat coverage was residential 50%, beach and ocean 25%, casuarina forest 15%, and freshwater ponds 10%. The count was on Dec. 24 from 7 a.m. to 8 p.m. The morning was overcast and the afternoon partly cloudy. The temperature ranged from 64 to 70°F, the wind NW, 5-28 m.p.h. One observer in one party. Total party-hours were 13 (10 on foot, 3 by bicycle); total party-miles were 10 (6 on foot, 4 by bicycle).

The species recorded were: Short-tailed Albatross, 1; Black-footed Albatross, 3000; Laysan Albatross, 100,000; hybrid Black-footed X Laysan, 2; Bonin Petrel, 2000; Red-footed Booby, 11; Great Frigatebird, 3; Red-tailed Tropicbird, 1; Am. Golden Plover, 107; Bristle-thighed Curlew, 30; Wandering Tattler, 8; Ruddy Turnstone, 81; Glaucous-winged Gull, 1; Common (Brown) Noddy, 3; Black (Hawaiian) Noddy, 750; White Tern, 250; Common Myna, 66; and Common Canary, 38.

Total: 17 species, 2 hybrids; about 106,352 individuals. (In count area count week but not seen count day: Wedge-tailed Shearwater, Blue-faced Booby).

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KAPI'OLANI PARK AND NA LA'AU ARBORETUM FIELD TRIP

Nine members and guests gathered in front of the Waikiki Aquarium at 7:30 on February 8th for the Hawai'i Audubon Society's hike to Kapi'olani Park and the Na La'au Arboretum. Because of traffic hassles due to the Carole Kai Bedrace, the group decided to move to the Diamond Head tennis courts, but not before Mike Ord found a Yellow-fronted canary in front of the Aquarium for the first sighting of the day. Regrouping at the tennis courts, we were joined by more hikers, bringing the total up to 23. Walking toward the driving range and Waikiki School, we found the usual assortment of common urban birds: House Finches, House Sparrows, Red-crested Cardinals, Northern Cardinals, and Common Mynahs; Java Sparrows were less common, but still in good numbers and easily seen. The Japanese White-eyes were also fairly easily seen. Two brilliant Saffron Finches were found at the end of the playground near Waikiki School and the Lili'uokalani Rose Garden. The pair was seen well in good light about 15-20 yards away for 10 minutes. On the way back to the tennis courts, Mike Ord caught sight of a Nanday Conure by the driving range, but it was not seen again. Searching the area, Mike found three Indian Ring-necked Parrots, an unusual number, in an ironwood tree. With the sun at our backs, everyone had a good look at these interesting birds. At the same time, three White Terns flew overhead, providing a fairly good look. Searching behind and around the tennis courts provided more Yellow-fronted Canaries, but no other unusual birds were seen. Two Mockingbirds were seen well at the Hawaii School for Girls, and two Shamans heard by all and seen by a few. We then hiked up into the Na La'au Arboretum, but found no more interesting birds. Recent rains had left this part of Diamond Head unusually lush. The group then broke up, with most returning to the cars via the School, the others going around the long way out the arboretum entrance. The last sighting of the day was a nesting White Tern on the far Kahala side of the small park by the fountain. The bird was sitting on an egg in an ironwood tree. Presumably the same bird that has successfully raised at least three chicks previously, it was on the same spot on the same branch as in former years. (As an afternote, the egg had hatched and the chick was quite large by March 14th.)

Although bird numbers were generally low, the nesting Manu o Ku made for a successful hike. Total numbers seen of the more interesting birds were:

Yellow-fronted Canary - 5; Saffron Finch - 2; Nanday Conure - 1; Indian Ring-necked Parrot - 3; White Tern (Manu o Ku) - 4; Mockingbird - 2; and Shama - 2.

Jaan Lepson

NEW GUINEA RODENTS FEATURED

The excellent series, sponsored by the Wau Ecology Institute has recently come out with a useful new guide, "Handbook of New Guinea Rodents" by J.I. Menzies and Elizabeth Dennis, available at the Bishop Museum for \$5.00.

We quote from a recent review of the handbook by Dr. William Z. Lidicker, Jr., of the Museum of Vertebrate Zoology, University of California, Berkeley, that appeared in the *Journal of Mammology* (1980: 779-780).

"This handbook is a semipopular account of the diverse and little-known rodent fauna of the Papuan Subregion of Australasia. Those unfamiliar with this fauna will find this a convenient summary of a scattered literature, and also a pioneering effort to report what little is known of the habitats and habits of the 59 species recognized by the authors (53 native and 6 introduced). Greatly contributing to the value of the work are 25 color photographs illustrating 23 species of rodents and one marsupial. A black and white photograph showing the scale and hair patterns of four rat tails is also excellent." . . .

"All seven chapters in this book are delightfully introduced by appropriate quotes from the rat in Kenneth Grahame's 'The Wind in the Willows.' The four brief introductory chapters succinctly introduce the reader to the mammalian fauna of New Guinea, rodent classification and 'biology,' and additional relevant literature." . . .

"Thus, this little book is a useful introduction to the rodents of mainland New Guinea. Information of value to both the amateur and professional is included."

We suggest this book and others in the series to readers of the *'Elepaio*.

C.J.R.

ALOHA TO NEW MEMBERS

We welcome the following new members and encourage them to join in our activities.

Joint (National and Hawaii): Phyllis Jean Bruce, Paia; Michael Buck, Waimanalo; Mrs. Helena S. Buffett, Honolulu; Dr. Michael Chaffin, Kailua; Yvonne N.L.H. Ching, Honolulu; Marc H. Dalton, Honolulu; Ms. Robin Demeo, Hilo; William Erdmann, FPO San Francisco; Jules Evens & Family, Point Reyes, CA; David L. Farrar, FPO San Francisco; Dr. & Mrs. Jay P. Gurian, Honolulu; Mark Hertig, Aiea; Roy Lambrecht Woodworker, Kailua-Kona; Don Libbey, Honolulu; Mr. & Mrs. L.J. Mench, Kokokahi; Marcia Morse & Family, Honolulu; Tokuchi Niimi, Wahiawa; Terrence Payne, Honolulu; John A. Pedit, Honolulu; Tami Lynn Peterson, Honolulu; Mrs. Alzora Rutter, Aiea; Rita Sykes, Makawao; William Walling, Honolulu; Doris H. Young, Waianae.

MAHALO TO CONTRIBUTORS

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MAY'S TALK: FERAL PIG MANAGEMENT PROBLEMS IN KIPAHULU VALLEY, MAUI

Feral pigs constitute one of the most serious problems confronting Hawaii's native ecosystems. This is especially so in the denser, wetter rain forests that provide abundant food and cover for these animals. Little research has been done towards removal, control, or management of them.

Mr. C.D. Diong, a graduate student in the Zoology Department of the University of Hawaii at Manoa, is working on a thesis concerning feral pig management. This project is helping to provide some light where there is presently much heat. His study area is located in Kipahulu Valley, Haleakala National Park, Maui. Come see, and listen to how he has to walk a tight-rope between biology and socio-politics to accomplish his research. Illustrated with slides. McCully-Moiliili Library, 2211 South King Street at 7:30 pm.

MT. KA'ALA GOAL OF MAY FIELD TRIP

On Saturday, May 9, there will be a field trip to Mount Ka'ala. Arrangements have been made with the State Division of Forestry and Wildlife for access to the highest peak on Oahu, at more than 4000 feet. Birds that may be seen include the 'Apapane, 'Amakihi, and possibly even the endangered Oahu Creeper. The Japanese Bush-Warbler is also frequently seen and heard.

The group will be limited to between 15 and 20 people and will meet at the State Library on Punchbowl, just off South King at 7:00 a.m. Participants can also meet on Farrington Highway, just past the intersection of Kaukonahua Road (Thomson Corner) at 7:40 a.m. Bring water, lunch, binoculars, rain gear, and footwear for a muddy trail. We will consolidate into 4 or 5 cars. Four-wheel drive cars are highly desirable. No automatic transmission cars will be allowed to transit this road. For more information, call Tim Burr at 254-3905.

MEMBERS WELCOME AT BOARD MEETINGS

The Board encourages members to attend and participate in the monthly Board meetings. It is a good way to get more involved in conservation issues and in the workings of the Society.

HAWAII AUDUBON SCHEDULE OF EVENTS

(for details, see inside back cover)

May 9 (SATURDAY...note day change) Field trip to Mt. Ka'ala, Oahu. Native forest birds and plants. Meet at Punchbowl St. side of State Library at 7:00 a.m. or on Farrington Highway, just past Kaukonahua Road at 7:45 a.m. Call Tim Burr (254-3905) for information.

May 11 (Monday) Board meeting at the home of George Balazs (992-A Awaawaanoa Pl., Hawaii Kai; phone 395-6409). Members always welcomed! Promptly at 7:15 p.m.

May 18 (Monday) Regular meeting at 7:30 p.m. Topic will be "*Feral Pig Management Problems in Kipahulu Valley, Maui*" by C.D. Diong of the University of Hawaii. A discussion of the tasty omnivorous agent of destruction's role in Hawaii.

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