

# 'ELEPAIO

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For the Protection of  
Hawaii's Native Wildlife

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## VOLCANO, HAWAI'I, CHRISTMAS COUNT 2 January 1977

Areas:	1	2	3	4	5	6	7	8	9	TOTAL
White-tailed Tropicbird	.	2	.	.	.	.	.	.	.	2
Nēnē (Hawaiian Goose)	2	.	.	2	2	.	.	.	.	6
'Io (Hawaiian Hawk)	.	.	.	.	.	.	1	2	.	3
California Quail	10	.	.	21	12	.	.	.	.	43
Ring-necked Pheasant	4	.	.	.	.	.	.	.	.	4
Green Pheasant (Blue)	.	.	.	9	2	.	.	.	.	11
Golden Plover	51	14	.	81	1	25	.	.	.	172
Spotted Dove	1	.	.	1	.	16	.	.	.	18
Barred Dove	.	.	.	.	.	2	.	.	.	2
European Skylark	15	.	.	42	8	1	.	.	.	66
Red-billed Leiothrix	.	.	.	55	.	8	4	6	10	83
'Ōma'o (Hawai'i Thrush)	.	7	1	425	1	13	387	100	27	961
Hawai'i 'Elepaio	5	.	.	180	11	1	58	24	20	299
Common Myna	52	1	.	49	.	156	.	.	.	258
Japanese White-eye	52	8	.	65	8	65	29	10	13	250
Hawai'i 'Amakihi	7	1	30	141	73	.	73	13	.	338
Hawai'i Creeper	.	.	.	23	.	.	.	.	.	23
Hawai'i 'Ākepa	.	.	.	91	.	.	.	9	.	100
'Akiapola'au	.	.	.	20	.	.	1	1	.	22
'Apapane	71	62	22	731	158	420	1127	21	143	2755
'I'iwi	2	.	.	62	29	4	208	.	11	316
Spotted Munia	5	4	.	15	1	83	7	6	.	121
House Sparrow	12	1	.	6	.	4	.	.	.	23
Northern Cardinal	9	.	.	31	4	9	.	4	.	57
House Finch	33	.	.	15	10	.	.	.	.	58
No. of Individual Birds:	331	100	53	2065	320	807	1895	196	224	5991
No. of Species:	16	9	3	21	14	14	10	11	6	25

### Areas Covered:

- 1 Kipuka Puaulu (Bird Park) and adjacent areas in Hawai'i Volcanoes National Park (Keith Hoofnagle, Margaret Linderer, Dale Thompson)
- 2 Rim of Kilauea Crater (Keith Hoofnagle, Margaret Linderer, Dale Thompson)
- 3 Mauna Loa Trail, 6600-8200' elevation (Claudia Belcher, Gary Nishimoto, Don Reeser)
- 4 Keauhou Ranch (Karen Anderson, Marian & Mark Collins, Larry Katahira, Peter & Robert Pyle, C.J. & Carol Ralph)
- 5 Mauna Loa Strip Road, 4000-6600' elevation (Claudia Belcher, Gary Nishimoto, Don Reeser)
- 6 Volcano Community (Lionel Carvalho, Clifton Davis)
- 7 Stainback Highway and Pu'u Makaala (Bill & Mae Mull)
- 8 Kilauea Forest Reserve (same as 4)
- 9 Ola'a Tract (National Park Service)(Suzy Allen, Winston Banko, Jack & Marty Lockwood)

Count taken within 15-mile diameter circle centered on Kulani Cone summit (19°31'N, 155°18'W). Weather: Clear to cloudy, occasional rain; temperature 52-70°F; wind NE,

0-10 m.p.h.

Twenty-two observers in 6 parties: Total party-hours, 64 (55 on foot, 9 by car)  
Total party-miles, 120 (44 on foot, 76 by car)

1976 Volcano, Hawai'i, Christmas Count by Larry K. Katahira, Compiler

This year we had 22 participants (one more than last year), spending more time (64 party-hours vs. 56 last year) and traveling more miles (120 party-miles vs. 76 last year), as a result we counted more individual birds (5991 vs. 4591 last year). There were 25 species recorded (24 last year) with the following former species (not recorded last year) reinstated in the records: White-tailed Tropicbird, Nēnē, and Ring-necked Pheasant. However, the following species: Chukar Partridge (only recorded in 1972), Japanese Quail, and Melodious Laughing-thrush were not located on the count day this year, a deficit of no consequence. The only significant deficiency in the 5-year count is that we've yet to get the Pueo and 'Ō'ū, both of which have been sighted within the Count Circle on other occasions.

This year there were new highs for 11 species (6 introduced, 5 native) and no lows. Because of the relatively short 5-year history of the Volcano Count, greater coverage (party-hours and miles), and other variable factors, most of the highs cannot be regarded as valid indications of increasing populations of the species. Nevertheless, it was rewarding to count 961 'Ōma'o (702 previous high in 1974), 299 Hawai'i 'Elepaio (197 previous high in 1975), and 338 Hawai'i 'Amakihi (240 previous high in 1975).

There has been a progressive increase of Common Mynas since the Volcano Count began (19 in 1972, 41 in 1973, 92 in 1974, 157 in 1975, 258 in 1976). The greatest increase has occurred in the Volcano Community where several residents have attested and complained that Common Mynas appear to be more abundant today.

Due to the high 'Ōhi'a bloom and favorable weather conditions, count area Stainback Highway-Pu'u Makaala recorded 1127 'Apapane and 208 'I'iwi (724 and 57 respectively in 1975).

Five endangered species were observed during the count day: Nēnē, 'Io, Hawai'i Creeper, Hawai'i 'Ākepa, and 'Akiapola'au. New highs within this group of endangered endemics were for the Hawai'i Creeper (23 vs. 17 previous high in 1975) and Hawai'i 'Ākepa (100 vs. 45 previous high in 1975). Again, these highs do not represent valid trends, since there was more coverage (party-hours and miles) in these particular count areas compared to previous years.

VOLCANO, HAWAI'I, CHRISTMAS COUNT  
1954-1976

	Highest Prior Count*	1972	1973	1974	1975	1976
White-tailed Tropicbird	3	2	2	3	.	2
Nēnē (Hawaiian Goose)	.	6	4	2	.	6
'Io (Hawaiian Hawk)	2	1	4	7	4	3
California Quail	.	.	1	1	29	43
Chukar Partridge	.	23	.	.	.	.
Japanese Quail	.	.	.	.	2	.
Ring-necked Pheasant	13	1	1	.	.	4
Green Pheasant (Blue)	**	9	12	17	13	11
Golden Plover	42	68	157	71	346	172
Spotted Dove	15	2	6	16	24	18
Barred Dove	2	11	18	1	1	2
European Skylark	44	16	23	16	43	66
Melodious Laughing-thrush	.	.	.	.	1	.
Red-billed Leiothrix	196	16	13	84	49	83
'Ōma'o (Hawai'i Thrush)	19	382	284	702	571	961
Hawai'i 'Elepaio	92	75	68	169	197	299
Common Myna	54	19	41	92	157	258
Japanese White-eye	122	169	239	330	391	250
Hawai'i 'Amakihi	280	128	207	201	240	338
Hawai'i Creeper	8	1	3	13	17	23

	Highest Prior Count*	1972	1973	1974	1975	94 1976
Hawai'i 'Akepa	.	13	13	15	45	100
'Akiapola'au	4	30	9	20	34	22
'Apapane	1307	3269+	3061	3893	2037	2755
'I'iwi	71	246	161	424	163	316
Spotted Munia	46	76	21	93	107	121
House Sparrow	49	2	31	6	31	23
Northern Cardinal	11	19	22	42	48	57
House Finch	236	50	153	54	41	58
No. of Individual Birds:	2616	4634+	4554	6272	4591	5991
No. of Species:	21	25	25	24	24	25

\*Prior counts taken 1954-6, center of count circle  $\frac{1}{4}$  mile south of Hawaii Volcanoes National Park Headquarters. Number is greatest for respective species of these three counts.

\*\*Lumped with Ring-necked pheasant in 1954-6 counts.

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KAPA'A, KAUA'I, CHRISTMAS COUNT  
18 December 1976

Areas:	1A	2,3,4	5	6	TOTAL
Laysan Albatross	1	.	.	.	1
White-tailed Tropicbird	3	.	9	8	20
Brown Booby	3	.	.	.	3
Red-footed Booby	2000	.	4	.	2004
Great Frigatebird	56	1	2	.	59
Cattle Egret	407	477	.	90	974
Black-crowned Night Heron	.	32	2	.	34
Hawaiian Duck (Koloa)	.	36	.	3	39
Pintail	.	71	.	.	71
Lesser Scaup	.	6	.	.	6
Ring-necked Duck	.	4	.	.	4
Japanese Quail	.	1	.	.	1
Red Junglefowl	.	1	16	.	17
Ring-necked Pheasant	.	4	.	2	6
Hawaiian (Common) Gallinule	.	30	.	2	32
Hawaiian (American) Coot	11	373	.	23	407
Golden Plover	2	192	18	25	237
Ruddy Turnstone	.	5	.	.	5
Wandering Tattler	.	8	.	.	8
Hawaiian (Black-necked) Stilt	.	103	.	3	106
Spotted Dove	4	52	27	2	85
Barred Dove	49	423	100	72	644
Barn Owl	.	.	1	.	1
Hawaiian (Short-eared) Owl (Pueo)	.	1	.	.	1
Melodious Laughing-thrush *	6	21	26	.	53
Shama	3	8	33	3	47
Japanese White-eye	25	41	85	50	201
Common Myna	5	205	100	104	414
Western Meadowlark	2	59	.	29	90
Spotted Munia	13	625	90	56	784
House Sparrow	.	27	75	2	104
Red-crested Cardinal	.	1	.	.	1
Northern Cardinal	2	19	56	4	81
House Finch	36	53	85	4	178
Mockingbird *	3	3	.	2	8
No. of Individual Birds:	2631	2882	729	484	6726
No. of Species:	19	30	17	19	35

Areas Covered:

- 1A Kilauea to Kilauea Stream, makai of Highway 56  
 B Hanalei to Kilauea, makai of Highway 56 (NOT COVERED)  
 2 Waipa Stream to Ka Loko Reservoir, mauka of Highway 56  
 3 Kilauea Stream to Anahola  
 4 Anahola to Waipouli  
 5 Waipouli to Wailua River, mauka to Sleeping Giant  
 6 Wailua Homesteads, mauka of Sleeping Giant  
Habitat Coverage: Valleys and ridges 40%, sugar cane and abandoned pineapple fields 25%, pasture 15%, ocean front, streams and reservoirs 15%, towns 5%.  
Hours: 7:00 a.m. to 6:00 p.m.  
Weather: A.M. mostly clear, P.M. partly cloudy. Temperature 57-84°F. Wind SSW-N, 5-8 m.p.h.  
Eight observers in four parties (areas in parentheses): Dalton & Eleanor Clark (6), Henry Hansen (2-4), Delano Kawahara (2-4), John & Nina Maciolek (1A), William Villanueva, Jr. (2-4), Grace Yoder (5).

1976 Kapa'a Christmas Bird Count by C.F. Zeillemaker for D. Kawahara, Compiler

Area 1A: The Laysan Albatross was at Kilauea Point (lighthouse) where the species has been visiting from December to May the past two years. There were 6 by January. The evening Red-footed Booby and Great Frigatebird tallies were new highs for this count.

Area 1B: Not covered.

Areas 2-4: The 4 Ring-necked Ducks and 6 Lesser Scaup with many Hawaiian Coots were on Pu'u Ka Ele Reservoir, formerly used for sugar irrigation. Interestingly, both species have appeared on Hawai'i and O'ahu also this winter.

Area 5: The 4 Red-footed Boobies were passing overhead on their way to the Kilauea colonies.

Areas 5 & 6: The White-tailed Tropicbirds from these two areas alone established a new high tally for this count.

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Lihu'e, Kaua'i, Christmas Count  
 18 December 1976

Areas:	1	2	3	4	5	TOTAL
White-tailed Tropicbird	10	4	.	4	.	18
Cattle Egret	31	213	2	.	.	246
Black-crowned Night Heron	4	3	.	.	2	9
Mallard	10	.	.	.	.	10
Koloa (Hawaiian Duck)	51	7	.	.	.	58
Pintail	370	1	.	.	.	371
Northern Shoveler	55	.	.	.	.	55
Lesser Scaup	1	.	.	.	.	1
Red Junglefowl	12	.	.	.	2	14
Ring-necked Pheasant	6	6	.	.	1	13
Hawaiian (Common) Gallinule	12	4	.	.	.	16
Hawaiian (American) Coot	311	11	24	.	.	346
Golden Plover	78	91	3	8	6	186
Black-bellied Plover	1	.	.	.	.	1
Ruddy Turnstone	43	.	8	.	.	51
Wandering Tattler	2	3	.	.	.	5
Sandpiper (sp?)	2	.	.	.	.	2
Sanderling	2	.	.	.	.	2
Hawaiian (Black-necked) Stilt	26	7	.	.	.	33
Spotted Dove	27	52	9	4	5	97
Barred Dove	245	379	47	2	10	683
Melodious Laughing-thrush	16	5	7	1	4	33
Mockingbird	.	.	2	.	.	2
Shama	17	11	8	1	.	37
Japanese White-eye	120	50	46	40	9	265
Common Myna	82	203	75	1	6	367

AREAS COVERED:

- 1 Huleia Stream, Menehune Fishpond, Waita Reservoir, Kaua'i Surf Golf Course, Lydgate Park & nearby shores, Paradise Pacifica
- 2 Nawiliwili Harbor, Knudsen Gap Road to Wailua River, areas not covered in (1), Waita Reservoir done in conjunction with (1)
- 3 Poipu, Koloa, Knudsen Gap Road to 'Ōma'o Road
- 4 Kahili Mountain Park
- 5 Pacific Tropical Botanical Garden  
 (Rest of circle from Pac. Trop.Bot.Garden west not covered this year)

Areas:	1	2	3	4	5	TOTAL
Western Meadowlark	13	17	8	.	1	39
Spotted Munia	139	145	82	.	.	366
House Sparrow	26	37	39	7	.	109
Red-crested Cardinal	6	2	4	.	.	12
Northern Cardinal	33	33	26	2	2	96
House Finch	17	67	41	6	.	131
No. of Individual Birds:	1768	1351	431	76	48	3674
No. of Species:	31	23	17	11	11	32

HABITAT COVERAGE:

Valleys & ridges 35%,  
sugar cane fields 40%,  
pasture 5%, ocean front,  
streams, holding ponds  
& irrigation ditches 15%,  
towns 5%.

HOURS:

7:00 a.m. to 6:00 p.m.

Weather: A.M. clear, P.M. partly cloudy to mostly cloudy. Temperature 66-79°F.  
Wind variable, 5-15 m.p.h.

Eleven observers in five parties (areas in parentheses): Sister Mary Arthur (4&5), Heidi Bornhorst (4&5), Myrna Campbell (3), Sophie Cluff (2), Margaret Faye (3), Erin Lee (4&5), Trisha Procter (4&5), David Sears, Sr. (2), Winona Sears (2), David Sears, Jr. (1), Virginia Siewertsen (2).  
Winona Sears, Compiler

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Waimea, Kaua'i, Christmas Count  
19 December 1976

White-tailed Tropicbird.....	9	Melodious Laughing-thrush...	5
Great Frigatebird.....	1	Mockingbird.....	17
Cattle Egret.....	31	Shama.....	3
Black-crowned Night Heron.....	3	Kaua'i 'Elepaio.....	16
Red Junglefowl.....	65	Japanese White-eye.....	6
Ring-necked Pheasant.....	2	Common Myna.....	70
Hawaiian (Common) Gallinule.....	4	Kaua'i 'Amakihi.....	22
Hawaiian (American) Coot.....	7	'Anianiau.....	10
Golden Plover.....	43	Kaua'i 'Akepa.....	3
Sanderling.....	8	'Apapane.....	68
Hawaiian (Black-necked) Stilt.....	9	'I'iwi.....	27
Spotted Dove.....	199	Spotted Munia.....	58
Barred Dove.....	233	House Sparrow.....	101
Hawaiian (Short-eared) Owl (Pueo)...	1	Northern Cardinal.....	36

No. of Individual Birds: 1057      No. of Species: 28

Areas Covered:

- 1 Main Highway 55 route Kekaha to Waimea Canyon and all lowland areas
- 2 Waimea Canyon to Kōke'e, Kōke'e trails and jeep trails

Habitat Coverage: Valleys and ridges 60%, sugar cane fields 20%, pasture 5%, ocean front, streams, ponds and ditches 10%, towns 5%.

Hours: 7:45 a.m. to 3:45 p.m.

Weather: Mostly clear. Temperature 55-80°F. Wind variable, 5-15 m.p.h.

Eight observers in two parties (areas in parentheses): David Boynton (2), Donnell Curley (2), Gary Dunsmoor (2), Takeshi Fujita (1), Russell Ilima (2), Lance Matsunaga (2), Gary Moura (2), Jan Okinishi (2). -- By C.F. Zeillemaker for David Boynton, Compiler

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Addendum to the Honolulu Christmas Count, 19 December 1976: The following reports were received too late to be included in the Honolulu Christmas Count totals reported in the February 1977 'ELEPAIO, Vol. 37, No. 8:

Sector 5B Kapahulu, La Pietra, Diamond Head Crater, Kaimuki: Sandra Guest

Golden Plover 20, Rock Dove 23, Spotted Dove 64, Barred Dove 170, Red-vented Bulbul 6, Mockingbird 3, Common Myna 124, Japanese White-eye 91, Red-cheeked Cordon-bleu 7, Lavender Firefinch 7, Orange-cheeked Waxbill 5, Red-eared Waxbill 13, Spotted Munia 38, Java Sparrow 3, House Sparrow 54, Red-crested Cardinal 15, Northern Cardinal 36, Yellow-fronted Canary 2, House Finch 69.

750 individuals, 19 species.  $3\frac{1}{2}$  party-hours (2 on foot,  $1\frac{1}{2}$  by car),  $21\frac{1}{2}$  party-miles ( $1\frac{1}{2}$  on foot, 20 by car).

I covered the Diamond Head area alone on Sunday. The area was extremely dry, especially inside the crater. The vegetation was brown (i.e., Haole Koa had no leaves),

and bird activity was probably influenced. The bird seemed very quiet. The small finches were observed at the periphery of Na La'au, most of them being in a small mixed flock above La Pietra. One Orange-cheeked Waxbill was singing. -- Sandra Guest

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This was the second year that Sector 10 (Kāne'ohe-Kahalu'u) was included in the Annual Christmas Count. The same basic areas and routes were followed as in 1975 with the exception of 'Āhuimanu and Old Pali Road sectors.

The weather was ideal for birding--cool, calm morning growing into a warm, sunny day with scattered clouds. The observers began in two groups (Ha'ikū-Burrs and 'Āhuimanu-Samuelsons) and joined at Valley of the Temples to form a single party. 'Āhuimanu, therefore, had two observation periods morning and mid-morning, in two different areas. Observations along the Old Pali Road began earlier (1515 hours) than in 1975 (1715 hours).

Ha'ikū again yielded good counts of Shama, Japanese Bush Warbler, and Melodious Laughing-thrush. A chance sighting of a large group of Red-vented Bulbuls as they departed their roost accounted for the large difference in 1975 and 1976 numbers. Although a few more individuals were counted this year, the Bush Warbler singing seemed less vigorous and reduced in frequency from that heard at the same time last year.

Al Samuelson, joined this year by his wife, Shirley, heard Barn Owls above the ridges of 'Āhuimanu Valley to continue the recording of this species in Sector 10; a great early-morning effort (0515 hours) by the Samuelsons! Kahalu'u again yielded high counts of Barred and Spotted Doves at the same poultry farm.

Because of a high tide at the time the Kāne'ohe Bay shoreline was surveyed, very little in the way of shorebirds were seen. We did glimpse both the Great Frigatebird and Red-footed Booby gliding offshore, however.

The Old Pali Road was particularly productive and rewarding this year due, in part, to the earlier census time. Just a few yards from the lower entrance, Al and I were treated to a fantastic encounter with two Melodious Laughing-thrush. After a little coaxing, they exploded into a vigorous concert of songs and calls, while, at the same time, providing excellent, unobstructed views as they hopped about in the open understory--a satisfying end to a fine day in the field. -- Tim Burr

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Field Notes from Omer Bussen: O'ahu Creeper, Peregrine Falcon, and Other Notes

On the December 19 Christmas count, Frank Howarth and I spent eleven hours on 'Aiea Ridge. At 11:50, when bird activity was generally much diminished, we happened to see an 'Apapane dipping repeatedly into a slime flux on the top of a large horizontal koa branch fifty feet away. We were then at about the 1740' level, 0.8 mile beyond the Loop Trail cut-off. We stayed two hours, during which the slime fluxes (another was noted on a nearby vertical branch) were visited over and over by at least three individual 'Apapane, three to five Japanese White-eyes, and one bird we determined to be an O'ahu Creeper. Each bird dipped into the flux twenty or thirty times at a visit; twice the tongue of an 'Apapane could be seen. The Creeper was seen to pry and pick deeper and longer at the flux and bark, and a few pieces of lichen or bark were seen falling as a result of its feeding. The Creeper visited the fluxes ten times; several times for over thirty seconds and once (timed) for over five minutes. The same bird (probably) was seen the following day by Robert Pyle, Maile Stemmermann, and myself.

The Creeper was buffy gray-green-brown above, the head darker; white below, white tufts on the legs; light yellow breast. Wings were brownish-gray, with two white wing bars; the anterior shorter (by half). The bill was dark or light gray, depending on the angle of view (countershaded?), and curved. The amount of curvature was very difficult to determine due to the attitudes and motions of the bird. A slight dark eye-line nearly disappeared in good light, indicating a depression shadow; there were perhaps very slightly lighter lines above and below the eye. The tail was short and rounded, with a notch in the end.

Two unfamiliar trills were heard while it was nearby.

We are not without our doubts about the Creeper. Once an 'Amakihi-like call was heard as the Creeper left the flux. Another time it appeared startled as an 'Amakihi-like call was heard nearby. Note that no 'Amakihi was seen during the two hours.

The straighter, thicker bill of the O'ahu Creeper does not seem to be a reliable field mark due to countershading and the activity and movement of the bird. Possibly more useful field marks were noted in skins at the Bishop Museum. Male O'ahu Creepers have a conspicu-

ous bright yellow forehead. The O'ahu 'Amakihi males have a dark gray-green forehead concolorous with the crown. Females and immatures of both species have two wing bars. These are white and distinct in the O'ahu Creepers. The wing bars of the O'ahu 'Amakihi are generally not as distinct and in some individuals are yellowish.

The Creeper was chased from the site by a White-eye at least four times. A White-eye was chased away by an 'Apapane six times or more. Twice the chased White-eye perched on a nearby branch, crouched and quivered its wings in an appeasement display, in one case for thirty seconds or more.

A Kamehameha Butterfly also visited the flux several times, quite oblivious to approaching birds.

A Japanese Bush Warbler and an 'Elepaio each perched no more than ten feet from us during our vigil.

On the December 20 visit, photographs were taken with a 400 mm lens, hand held, at fifty feet, with slow film (64 ASA). One slide of the Creeper is of some value, and has been shown to a number of knowledgeable persons. A one hour stint in the top of an 'ōhi'a tree, only eighteen feet from the site, proved fruitless. Only White-eyes and the butterfly would come. Another trip on December 30 with a much larger lens and faster film yielded another more usable slide.

The Peregrine Falcon was seen on December 19 at about the 1900' contour, 1.35 miles from the Loop Trail cut-off, and about 1.25 miles short of the Ko'olau summit. It was first seen flying two hundred yards ahead, perpendicular to the ridge. It disappeared behind a side ridge, then came across it, perhaps saw us, wheeled and perched in the top of an eighteen foot 'ōhi'a tree about 150 yards away. In our binoculars for about twenty seconds, we saw its black "mustaches", slaty gray body, mottled with black below. It flew down the valley showing long pointed wings and a long tail. Its length was estimated in the field as twenty inches.

All color data is taken from my notes of Frank Howarth's observations. He also read this report and suggested a number of changes.

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Field Notes from David Bremer: Mockingbird

A Mockingbird(s) (Mimus polyglottos) recently has been heard mimicking Hawaiian bird songs including what I perceived as the calls of the House Sparrow, House Finch, Northern Cardinal, Golden Plover, Common Myna, Red-vented Bulbul, Japanese White-eye, Shama, and perhaps others. Observations were made at dawn on six of the past seven days (December 12 to December 18, 1976) on the upper portion of the golf course at Pearlridge in 'Aiea, O'ahu. A singing Mockingbird was seen perched at the top of a tall tree on the mauka side of the twelfth green on four days. On each of these days the Mockingbird also sang from other locations. On another day, a Mockingbird was heard singing from several different locations and was last seen flying toward the tall tree mentioned above.

In contrast to clear weather on the days of singing, there was a light rain on December 14, the only day that no song was heard. A pair of Mockingbirds was observed about 100 yards from the tall tree on this occasion.

Verification of the Mockingbird identification was obtained on the basis of a tape recording made as the bird sang from a perch at the top of a twenty-foot Norfolk pine about 200 yards from the tall tree on December 13. Dr. Andrew Berger, who had called attention to a lack of known reports of mimicry by Mockingbirds in Hawaii (Berger 1972, 1976), confirmed the identification of the taped song as that of a Mockingbird. There has been a recent report of a Mockingbird "singing his heart out" last winter ('ELEPAIO, Vol.36, No.11, May 1976, pp.138-139); however, the purpose of that report was to document the bird's presence in Lanikai and the song was not described.

A preliminary content analysis of the tape was conducted at the Audubon Society's December 13 meeting. Dr. Sheila Conant tentatively identified the calls of the birds mentioned above, except for the House Finch, and recommended that the tape be analyzed more carefully before drawing firm conclusions. Another Audubon member suggested that the call of the Red-billed Leiothrix was present on the tape.

With the exception of the Leiothrix, all of the birds mentioned have been observed with some regularity on the golf course. Other birds commonly seen there are Spotted Dove, Barred Dove, Spotted Munia, Black-headed Munia, and Red-crested Cardinal. References: Berger, A.J. HAWAIIAN BIRDLIFE. University Press of Hawaii, Honolulu, 1972.

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Prob for Hawk Bird Stud, 1976. 'ELEPAIO, Vol.37, No.2, Aug 1976, p.15.

## Field Notes from David Bremer: Red-vented Bulbuls Roosting in a Banyan Tree

More than fifty Red-vented Bulbuls (Pycnonotus cafer) have been roosting rather inconspicuously in a banyan tree on the golf course (mauka of the eleventh tee) at Pearlridge in 'Aiea, O'ahu. The number of Bulbuls in the roost was not readily apparent because of dense foliage and because generally not more than two or three birds appeared to be singing or calling at the same time. Also, the Bulbuls entered and left the roost singly or in pairs or occasionally in small groups. Counts of Bulbuls leaving the banyan in the morning and returning in the afternoon (see table\*) clearly indicate that a flock of Bulbuls roosted in the tree. Some Bulbuls returned to the roost during the morning counts and left the roost during the afternoon; therefore, to assure an unduplicated count, the number of such "backtracking" Bulbuls was deducted from the number counted leaving in the morning or returning in the afternoon. Morning counts appeared to provide reasonably good estimates of the number of roosting Bulbuls. About half of the Bulbuls counted left the roost during the ten minute period coinciding with sunrise, 7:10-7:20 a.m.

The number of Bulbuls counted leaving the roost each morning was about double the number that had been counted entering the roost the previous afternoon. Even Red-vented Bulbuls, which have been described as increasing explosively since being introduced to O'ahu about twelve years ago (Pyle, 'ELEPAIO, Vol.36, No.8, Feb 1976, p.93), are incapable of reproducing that rapidly. The lower afternoon counts are presumably due to the arrival of some Bulbuls at the roost prior to the onset of counting. On each afternoon, Bulbuls were perched in trees surrounding the banyan at the start of the count and Bulbul calls indicated that some Bulbuls were already in the roost.

It would be interesting to know how far from the roost the Bulbuls range during the day, whether the same birds return to the same roost each night, what time of the year communal roosting occurs, whether nesting takes place there, and where other roosts are located. After leaving the roost, the Bulbuls appear to move about individually or in small groups, which is consistent with previously reported sightings summarized by Berger ('ELEPAIO, Vol.36, No.2, Aug 1975, p.17) and Pyle ('ELEPAIO, Vol.37, No.1, Jul 1976, p.9/No.4, Oct 1976, pp.46-47). The report by Pyle (October) of a Red-vented Bulbul nest in a potted plant suggests that roosts may be abandoned in the nesting season.

* Date	Time	Count	Time	Count
12/26/76	7:00-7:30 a.m.	57 left	5:30-6:00 p.m.	23 returned
12/27	6:45-7:45	51	5:00-5:15	34
12/28	--	--	4:55-6:05	35
12/29	7:00-7:40	66	--	--

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Field Trip, 14 November 1976, by Harry Whitten: November 14, a sunny day following night rains, was a good day for seeing waterbirds, although the veteran observer, Bob Pyle, says some days have been better.

In any case, the usual resident and visiting birds seemed to be enjoying themselves at Sand Island, on the Waipi'o Peninsula, and at the Honouliuli unit of the Pearl Harbor National Wildlife Refuge replacement habitat. Altogether, 25 species were counted.

Totals in the various areas: Sand Island--22 Pomarine Jaegers, seen offshore through the telescope; 8 Brown Boobies; 11 Frigatebirds, flying over just as we were leaving; and 1 Wandering Tattler. There were also several Sanderlings, Ruddy Turnstones and a Golden Plover playing around a rainpond in the dirt road. Waipi'o--Several male and female Red Munia and Black-headed Munia were observed in the fields, as well as two Red-crested Cardinals, as we were walking down the cane road to the "Big Pond." Here we observed an estimated 100 Pintails and Northern Shovelers, 57 Hawaiian Stilt, 20 Cattle Egret, two male and two female Green-winged Teal, 8 Coots, several Golden Plovers, 2 Black-bellied Plovers, several Ruddy Turnstones, 1 Wandering Tattler, 3 Dunlins, 4 Dowitchers (not identified as to species), about 20 Sanderlings, 1 Black-crowned Night Heron, 1 Least Tern, and 1 immature Gull (probably Franklin or Laughing). At the Waipi'o settling ponds, we saw about 85 Cattle Egrets, 28 Stilt, 3 Semiplumbed Plovers, 1 Killdeer, 1 female Lesser Scaup, and a few Northern Shovelers, Pintails, Golden Plovers, Ruddy Turnstones, and Sanderlings. Honouliuli--Now that the water supply has been assured, the replacement habitat ponds are attracting more birds. We observed 68 Stilts, 24 Golden Plovers, 4 Black-crowned Night Herons, 1 Coot, 1 Gallinule, 2 Tattlers, and 1 Sanderling. We also observed 13 Coots and 1 Night Heron at the nearby Honouliuli Pond. birds.

The day was quite educational for the observers not well acquainted with Hawaiian /

ENDANGERED SPECIES TECHNICAL BULLETIN, Vol.1, No.5, November 1976, pages 1 and 2; Hawaiian Bird Survey Yields Mixed Results: In the tangled rainforest on the flanks of Mauna Loa, Fish and Wildlife Service teams of birdcounters have discovered substantial populations of Hawai'i's Endangered 'ākepa (Loxops coccinea coccinea) and creeper (Loxops maculata mana). Preliminary results of the three-month survey this past summer--the first systematic count of forest birds on the island of Hawai'i--indicate there may be between 4,000 and 8,000 'ākepa and at least 1,000 creepers in the rugged upper elevations of Ka'u Forest.

The teams were not as fortunate with another Endangered bird, the 'akiapola'au (Hemignathus wilsoni). The count fell below team expectations, totaling just a few hundred. ...Some 'io (Buteo solitarius) were spotted by the census takers; the hawks were rather uniformly distributed and somewhat more common at lower elevations in closed-canopy areas. The highest elevations of the island produced sightings of the nēnē (Branta sandvicensis). The teams saw two young of this Endangered species. The 'alalā (Corvus tropicus) was heard but not seen. The teams heard heard a total of four 'alalā, but were not able to make any sightings. It is possible that this Endangered species occurs in the forest areas only as a transient. The total number of 'alalā is believed to be less than 50. The 'ō'ū (Psittirostra psittacea), once found on several islands, is now limited to the islands of Hawai'i and Kaua'i. The Hawai'i survey, however, did not produce any sightings; consequently, the 'ō'ū currently may rank as the rarest of the island of Hawai'i's Endangered forest birds.

Given the comprehensiveness of the survey, it was felt that there was a slim chance that the survey teams would perhaps come across one of the birds presumed to be extinct on the island of Hawai'i. These birds include, for example, the Hawai'i 'ō'ō (Moho nobilis), greater koa finch (Psittirostra palmeri), and grosbeak finch (Psittirostra kona). The teams had no such luck.

The survey was performed by two teams headed by J. Michael Scott and John L. Sinock, research biologists from the Hawai'i field station of the Service's Endangered Species Program. Each team included three temporary members....

The survey teams backpacked into Ka'u Forest, spending as much as eight days at a time in the field before packing out for a few days' rest. ...

The concept of a team survey was developed in collaboration with the Hawai'i forest bird recovery team. Previous surveys had been conducted by individual Service biologists; such surveys had revealed that one person working alone in such rugged country could not produce an adequate count.

In addition to counting birds, the two teams also sampled the phenology of plants on the island, characterized plants, and took samples of mosquitoes. The teams' interest in mosquitoes stemmed from the fact that avian diseases transmitted by these insects...are believed to be a cause of the decline of Hawai'i's honeycreepers. The birds have survived in the higher elevations, where they are safe from mosquitoes and also from habitat destruction.

The large amounts of raw data gathered by the survey teams are now being processed by computer. The U.S. Forest Service has contributed funding for this phase of the study. In addition, supplies and equipment have been provided by Hawai'i's State Division of Forestry and State Division of Fish and Game.

A second phase of the field study is scheduled to be undertaken next spring and summer. It will concentrate on the Hāmākua forest area on the northeastern coast of the island of Hawai'i. This area is three times larger than Ka'u Forest, and very little is known about its bird life.

#### Page 3, Survey Shows Hawaiian Coots and Stilts Holding Their Own:

The annual survey of the Hawaiian coot (Fulica americana alai) and the Hawaiian stilt (Himantopus h. knudseni) shows that each of these Endangered species continues to hold its own. Conducted in August by the Fish and Wildlife Service, the survey yielded 1,976 coots 1,479 stilts. The total for the coot, which is found mostly on Kaua'i, was 384 less than for 1975 but over 700 more than the nine-year average of 1,253. The total for the stilt, found mostly on O'ahu and Maui, was 3 more than for last year and about 250 more than the nine-year average of 1,225.

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CONGRATULATIONS to Life Member Ronald L. Walker: According to HONOLULU STAR-BULLETIN, 15 December 1976, page C-3, Ronald L. Walker, Wildlife chief of the State Fish & Game Div., ...was presented the Shikar-Safari Club International's "Outstanding Wildlife Officer of

the Year Award for 1976." The group is dedicated to the preservation of nature's resources throughout the world through conservation practices.

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**RARE BIRD DOCUMENTARY PHOTOGRAPH FILE:** The Hawaii Audubon Society and the Pacific Scientific Information Center, Bernice P. Bishop Museum, announce establishment of a Rare Bird Documentary Photograph File as an archival repository for photographs documenting the occurrence of rare birds in the State of Hawaii.

The occurrence and identification of a rare bird is best substantiated by collecting the bird and preparing it as a scientific specimen. However, most observers are not authorized, equipped or skilled at collecting specimens, and collecting or shooting in general are subject to severe restrictions in more and more areas on densely populated O'ahu and on other islands as well.

When collecting the bird is not possible, the next best documentation of its occurrence is a good photograph. Birds may be photographed almost anywhere by anyone with suitable equipment. But even a perfect photograph might as well not have been taken if it is unavailable for examination by others. Too often what could be valuable substantiation of records for future compilers is wasted because the photograph remains in the private collection of the observer/photographer. There it is subject to damage or loss through inadvertence or calamity, or may be unlocatable or unavailable because the photographer lives outside Hawai'i or later moves away from the State.

Purpose of the Rare Bird Documentary Photograph File is to provide a permanent central repository for the proper preservation of photographs and necessary accompanying records, where they will always be available for reference and examination. The File will be housed in the Pacific Scientific Information Center at Bishop Museum. Persons having photographs showing significant informative detail on what is or may be a rare or unusual bird in Hawai'i are encouraged to submit the original or a duplicate to the File. A duplicate will be made for the File if the photographer wishes to retain the original but will loan it temporarily to the File for that purpose.

Photographs can be accepted in any size up to about 8x10 inches. However, color or black and white transparencies in 2x2 inch slide mounts are preferred for ease of storage and handling. Each photograph submitted should be accompanied by a 4x6 inch card with the following information, if known:

On the front: Species common name; Scientific name; Age and sex; Island and locality where photographed; Dates of known occurrence (if more than one, underscore the date of the photograph); Photographer's name and address; Bird discovered by; Identified in the field by; Identified in the photo by.

On the back: Any field marks or behavior not shown on the slide; Distance at which observed; Distance when photographed; Photographic equipment; Citation to any published references to the occurrence; Any other comments.

This information follows the format used by the National Photoduplicate File, which was established in 1968 at the Office of Migratory Bird Management in Laurel, Maryland, to document rare bird occurrences in North America.

Photographs and accompanying data should be directed to: Manager, Pacific Scientific Information Center, Bernice P. Bishop Museum, P.O. Box 6037, Honolulu, Hawaii 96818.

A microfilm viewer is available for close study of slides. Duplicate copies of slides or prints can be provided at cost to those who may not be able to visit the Museum. All photographs deposited in the File will be used strictly as file copies for purposes of substantiation of records, and will not be available for commercial use.

Photographs of birds which are not rare and of exceptional interest at the time and place (in Hawai'i) where photographed, are not wanted for this file no matter how artistic, pleasing or colorful they may be. Good photographs showing less rare birds in identifiable detail may, however, be of considerable value for the Hawaii Audubon Society's educational collection.

For further information about the File, contact Mr. E.H. Bryan at the Pacific Scientific Information Center or Robert L. Pyle, 741 N. Kalaheo Ave., Kailua, Hawaii 96734.

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**"WE ALL NEED CLEAN WATER"** is the theme for the 40th annual National Wildlife Week, 20-26 March 1977. On Saturday, 19 March, the Key Club of Kaiser High School will clean up Paiko Lagoon as a public service. Your help is invited. For more information call Tucker Latimer, telephone 395-4303.

Hawai'i is surrounded by water and fortunately blessed with clean water, but we can't take it for granted, so let's vigilantly keep our pure water from pollution. What are you doing to conserve water and to keep it pure?

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On page 11 of **AMERICAN FORESTS**, Vol.83, No.1, January 1977, is a following "preface" on water by Dr. John L. Gray: Water. It cools feet and warms feet; cools engines. Makes tea and coffee, quenches thirst. Washes clothes, dishes, people and objects. Creates power; carries commerce. Defines borders. Changes the properties of chemicals and elements; mixes soups; extinguishes fires.

Opens pores; cures muscular ailments; washes wounds. Provides recreation. Spread germs; erodes land, metal and wood. Supports life; destroys life; becomes rain, snow, hail, and polluted. Sobers drunks; blesses people and animals. Hides murder weapons. Stains clothes. Is useful in pranks and gags. Carries waste; becomes perspiration and cools skin temperatures.

Wets handkerchiefs to wet brows; removes mascara and lipstick; softens beards, lubricates faces, brushes teeth. Reduces swelling. Thins paint and inks. Is pleasant to see, hear and touch; unpleasant in your clothes. Spills, spoils, spurts, sprinkles, splashes, ripples, runs, falls, flows, and cascades.

When displaced, it creates buoyancy, leaves wakes, makes noise. Dilutes and diffuses. Wrinkles skin and softens hair. Produces food. Removes oils, but doesn't mix with

petroleum products. Is worshipped, hated, and feared. Is the main and fundamental ingredient of life, and the chief mixer of bourbon.

In short, water is a pretty vital commodity.

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Letter from William P. (Pat) Dunbar, USNS Navasota, 17 January 1977

Pat has enclosed several pictures of birds taken on Navasota during September and October 1976. These colored pictures will be displayed at the general meeting.

...The kingfisher-like bird came aboard briefly when we were off the coast of Australia. Shearwaters were plentiful at the southern end of the Great Barrier Reef. Our speed was only a little less than that of the bird, and they took a while to cross our bow and get away from us. The sooty tern landed on deck and was unable to get off. After taking its picture I picked it up, to which it objected strenuously; carried it to the bow; and opened my hand, where it remained perched for several moments then flew away. The noddies were with us briefly after a siege of bad weather. The whimbrel, there were three of them, stayed at least two days, as did the ruddy turnstone. By far and away the most interesting were the even dozen hawks that spent part of a day and night. The only reasonably certain identification I was able to make was one Chinese goshawk, unable to get a picture of it. Eight roosted for awhile around the anchor windlass. The seaman going forward for lookout duty told me two flew away when he walked by. I went there after dark. As I approached, two flew away. Using a flashlight I counted four—one of which had dark eyes, the others were yellow.

The bird pictured, flew against a king post about forty feet above the deck, fell, landing on a winch bounced and landed on deck. The ordinary seaman on my watch picked it up and brought it to me on the bridge. Looking at it I was certain it was dead. Its head hung down completely relaxed, would swing back and forth. I was ready to throw it over the side, but holding it in my bare hand I could feel a slight motion as though it was breathing. I took it to my room and put it in a box. At midnight when I got off watch I took a look and it was up and ready to go. I went to the galley and got a few pieces of meat which I cut into small pieces, returned to my room, put on leather gloves (a wise move) and picked the bird up. It didn't struggle. Any time I got my other hand close to its head it would make a snapping motion in that direction, so using a toothpick with a little piece of meat on it, I poked at the bird and it snapped the bit off. This was done several times before it began to slow down and eventually disregarded me altogether. I returned it to the box and next morning I took it out on deck and took the enclosed picture, then released it.

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HONOLULU STAR-BULLETIN, 28 January 1977, page A-22, Whale Sanctuary off Maui Studied:

The establishment of a whale reserve is being considered in waters off Maui. ...The whales make annual migratory visits to Hawai'i between December and March for breeding purposes and usually frequent waters off Maui's Kihei and Lahaina coasts.

Mayor Elmer F. Cravalho said preservation of Maui County waters as a sanctuary for the whale's breeding activities "is essential to the continuation of the whale" which he noted is in serious danger of extinction. ...

The committee...will be expected to work with other agencies in setting up a clearing house for information on the whales. The group also will be required to establish an educational program designed to increase the awareness of the whales' plight. Also expected to result from the effort is the creation of a humpback whale research center on Maui. ...

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7 February 1977, page A-1, Whales Die in Massive Beaching on Florida Coast: As many as 100 whales may have died after beaching themselves here, and another herd appeared offshore today, the Florida Marine Patrol said. ...

10 February 1977, page F-7, Marine Lab Sleuths Study Whale Deaths: Autopsies are under way to try to determine why 200 pilot whales threw themselves onto a beach, after a frenzied two-day effort to save them ended with half of them dead or dying.

As the life-saving effort ended at sunset Monday, nearly 80 dead whales lay on the sand around Fort George Inlet at the mouth of the St. Johns River. Twelve others were near death.... Marine scientists moved in to take some of the dead mammals' brains and other vital organs for study. They will test the theory that parasites infesting the inner ears of whales or porpoises damage their sensitive sonar and thus their equilibrium.

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Request Bird-flock Information: For the next few months a study of bird flocks in Honolulu and throughout O'ahu will be conducted, so please report all sightings of bird flocks, noting 1.Date and time, 2.Location, 3.Name of species, 4.Number of birds, and 5.Whether feeding, flying, or roosting, to C. van Riper III, Dept. of Zoology, University of Hawai'i, 2538 The Mall, Honolulu, HI 96822 or Cindy Garder, Hawai'i School for Girls at La Pietra, 2933 Poni Moi Road, Honolulu, HI 96815. MAHALO.

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Field Checklist: The Society's new Field Checklist of Birds of Hawai'i is now available. It lists 125 species occurring regularly in Hawai'i, with additional blank spaces for entering less common visiting species. Endemic and Endangered forms are indicated. Three columns are provided for recording observations at different localities. The list is in standard field card format, folded once to 4x6 inches in size. It is available either on heavier card stock for firmer recording in the field, or on lighter paper.

When ordered by mail, the list is priced at 25¢ each or 10¢ each for 10 or more, post-paid. Copies obtained directly without mailing are priced at 10¢ each or 5¢ each for 20 or more.

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Please report all bird sightings to field observation recorder, Dr. Robert L. Pyle, 741 N. Kalaheo Avenue, Kailua, Oahu 96734, telephone 262-4046.

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When you find a bird's nest, please call Dr. Andrew J. Berger at the Department of Zoology, University of Hawaii, telephone 948-8655 or 948-8617.

News Release from Bishop Museum, 17 February 1977: To coincide with "Save the Whales Week" 20-26 February 1977, Bishop Museum opened an exhibit featuring the Humpback Whale, Hawai'i's official marine mammal, on 20 February. ...

Between 200 and 250 Humpbacks winter in Hawaiian waters each year and many of the females in these whale pods give birth to their young here. Where these particular whales spend the rest of the year is still an unsolved mystery. ...The Humpback Whale is protected by the U.S. Endangered Species Act and by regulations of the International Whaling Commission, although some smaller whaling nations who do not belong to the Commission still take a number of this Endangered Species each year. ...

The exhibit is free to the public and is scheduled to remain on view for several months. ...

Hawaii Audubon Society had donated \$100.00 toward the exhibit.

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For Mrs. Polly Carlstead's generous KOKUA with the Book Order Committee, she was unanimously voted as a complimentary member at the 10 January 1977 Board meeting.

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Donations: MAHALO! Following members have generously included donations with their dues and purchases: David S. Boynton-\$13.00, W. Patrick Dunbar-\$3.43, Donald G. Johnson-\$2.16, Mrs. Robert K. Kepner-\$2.00, Mr. & Mrs. D.B. Luten-\$4.00, Donald Mitchell-\$2.00, Helen L. Morris-\$2.00, Drs. Carol P. & C. John Ralph-\$6.00, Euphie Shields-\$2.00, Mrs. Jean-Marie Spoelman-\$10.00, Mrs. Clyde K. Stroborg-\$2.00, Lawrence J. Taylor-\$2.00, and Julia Yoshida-\$2.00. MAHALO NUI LOA for your KOKUA!

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ALOHA to New Members:

Complimentary: Mrs. Polly Carlstead, 357 Iliaina St., Kailua, Oahu 96734

Life from Regular: Mrs. Roselle F.K. Bailey, P.O. Box 218, Kaunakani, Kauai 96747

Dr. David H. Brown, 313 N. Market St., Wailuku, Maui 96793

Junior: Robbie Hoxie, P.O. Box 396, Kalaheo, Kauai 96741

Regular: David S. Boynton, P.O. Box 651, Waimea, Kauai 96796

Cindy Carson, Route 1, Hazel, Kentucky 42049

Mrs. Helen Dobrowski, 1301 Uila St., Honolulu, HI 96818

Mrs. E.N. Hoffman, 35 High Noon Road, Weston, Conn. 06880

Mrs. Doris Huddleston, 865 N. Kalaheo Ave., Kailua, Oahu 96734 (Reinstated)

Donald G. Johnson, 81 Woodshire Drive, Ottumwa, Iowa 52501

David M. Jones, 16 Danfield Road, St. Louis, Missouri 63124

Timmy J. Ohashi, 45-575 Awanene Place, Kaneohe, Oahu 96744

Mrs. Edith H. Price, 5556 Opihi St., Honolulu, HI 96821

Audrey Suthe rland, 61-551 Pohakuloa Way, Haleiwa, Oahu 96712

James Sutherland, 2352 Kalaniana'ole St., Hilo, Hawaii 96720

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HAWAII'S BIRDS, a field guide, is available for \$3.00 + postage & tax. Postage: U.S. 25¢ book rate, 57¢ first class; foreign--variable, weight 5ozs; sales and mailing in Hawaii--add 12¢ sales tax. Send in orders to Book Order Committee, Hawaii Audubon Society, P.O. Box 22832, Honolulu, Hawaii 96822.\*\*\*\*\*

MARCH ACTIVITIES: PLEASE NOTE TIME

13 March - Field trip to Wai'anae Kai-Makaha Ridge to study forest birds. Meet at the State Library on Punchbowl Street at 6:30 a.m. Bring lunch, water, and if possible your car. Transportation cost (\$1.00) to be paid to the drivers. For information call evenings: Omer Bussen, 262-5506 or Dr. Sheila Conant, 988-6522.

14 March - Board meeting at Waikiki Aquarium Auditorium, 7:00 p.m. Members welcome.

21 March - General meeting at Waikiki Aquarium Auditorium at 7:30 p.m.

Program: Survey of rare and endangered bird species on the Big Island by

Dr. J. Michael Scott (color slides)

19-20 March - Field trip to Kauai. The Hawaii Audubon Society has scheduled a two-day field trip to Kauai. The group will depart Honolulu by SEAFILITE on Saturday, March 19, at 7:15 a.m.

Saturday will be spent birding at Kilauea Lighthouse, Hanalei National Wildlife Refuge, and other lowland areas in eastern Kauai. Overnight accommodations for the group have been reserved at Koke'e Cabins. The cabins have full kitchens. Saturday evening, group dinner will be at a restaurant before going up to Koke'e, for those who wish. Participants provide own breakfast Sunday morning. Koke'e Lodge restaurant opens at 10 am. Sunday will be devoted to birding and nature study around Koke'e and on the trails toward Alaka'i Swamp. Sunday afternoon will be scheduled as the group wishes. Depart by Hawaiian Airlines from Lihue about 9 pm Sunday evening, March 20. Two 12-passenger vans have been reserved for travel on Kauai. Overall field leader will be Fred Zeilemaker, the Society's Kauai Representative. Cost for the trip will be approximately as follows: SEAFILITE, \$22, children \$11 (SEAFILITE Club cards honored); Hawaiian Air return, \$18, children \$11.50 (includes group discount equivalent to membership card discount; membership cards not honored in addition); Koke'e Cabin, \$3-5 per person, depending on total number in cabin; van rental, about \$5 per person depending on number in the van. Reservations must be made in advance. Call Society member Mona Cunningham, 946-3923 (daytime) to reserve and obtain exact cost. Reservations confirmed when payment is made to Mona. Group limited to capacity of vans and cabins. For further information call Bob Pyle, 262-4046.

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HAWAII AUDUBON SOCIETY EXECUTIVE BOARD: President-Dr. Robert L. Pyle; Vice Presidents-Dr. Francis G. Howarth & Dr. Robert Shallenberger; Secretaries-Leilani Pyle & Dr. C.J. Ralph; Treasurer-Timothy A. Burr; Board Members-Richard H. Davis & Lawrence T. Hirai.

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'ELEPAIO: Editors-Charlotta Hoskins, Unoyo Kojima

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