

'ELEPAIO

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For the Protection of
Hawaii's Native Wildlife

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A Second Nest of the Small Kauai Thrush

by Philip R. Ashman¹, Peter Pyle² and Jack Jeffrey³

On 13 August 1983 we discovered an active nest of the Small Kauai Thrush or Puaiohi (*Phaeornis palmeri*) at an elevation of 1,335 m along the Halepaakai Stream in the Alakai Swamp, Kauai. This is the second *P. palmeri* nest to be found. Kepler and Kepler (1983) discovered the first nest in 1981, also in the Alakai Swamp. The nests were similar in composition, structure and location, indicating that the Puaiohi is a cavity nesting species.

The Small Kauai Thrush is endemic to Kauai; presently it is known only from the Alakai Swamp region (Berger 1981). The species occurs almost exclusively in heavily vegetated stream valleys and wet swales. It is a rare bird (John Sincock, J. Michael Scott pers. comm.) with a quiet, secretive nature which makes it very difficult to observe. We observed five individuals in the Alakai region during 11-14 August 1983.

On 12 August 1983 we saw an immature Small Kauai Thrush in a small bog about 50 m north of the Halepaakai Stream; Paul Sykes (pers. comm.) had found an adult Puaiohi in this same area on 25 May 1983. The bird was dark brown: individual feathers of the breast and upper back had buffy-white centers and dark brown edges giving the bird a heavily scaled appearance. After 5 min, two adults came into the area and began giving a harsh, buzzy, single note call. All three birds departed the area together after a short time.

We returned to the same site the next day with photographic equipment, but could not initially locate the birds. After waiting quietly for several minutes, we heard a thrush call near a bend in the stream and worked our way towards it. We found two adults in an area composed mainly of ohia *Metrosideros collina* and lapalapa (*Cheirodendron* sp.) with an understory of tree fern (*Cibotium* sp.), pukiawe (*Styphelia tameiameia*) and kanawao (*Broussaisia arguta*). The topography in this area is characterized by several steep hills rising 20-25 m above the stream, small heavily vegetated ravines, and a small flat next to the stream.

We spent one hour observing and photographing the adults. During this time we were able to differentiate the male from the female. Both birds had brown heads with a white eye ring; brown back, wings, rump and tail; grayish-white outer tail feathers; gray throat and breast; grayish-white underparts; black bill, dark eye and flesh-colored legs. When one of the birds was preening on a branch it showed a large expanse of bare skin on its lower breast and belly—a brood patch. This bird, a female, was lighter gray on the throat and breast (these areas blended together) than the male, and had an indistinct dark malar line. The male had an immaculate plumage: grayish-white throat, dark gray breast (there was a distinct demarcation between throat and breast), and a black malar line. Both birds called throughout the observation period, although the male was more vocal.

At 1120 Pyle observed the female with two pink berries in her beak. After several minutes she flew to a nest situated on a rock face bordering the stream, and fed the berries to a nestling.

The nest was 4 m above the stream on a 12 m high, southeast facing rock wall. The wall was covered with small ferns (*Sadleria squarrosa*), mosses, leafy liverworts and several isolated small plants. The nest was placed on a ledge of moss in front of a small cavity. It was overhung by a rocky outcrop 1 m above and by the ferns directly above the nest. It appeared that the nest was made of mosses, leafy liverworts, ferns, and grasses. There was one nestling; it was downy gray, with brown feathers 1-2 cm long growing from its back, wings, and tail.

We observed the nest for two hours and made the following notes on the nest visits:

- 1125: Female arrived at nest with two pink berries (pukiawe?), fed the nestling and departed.
- 1230: Female arrived at nest with a 4 cm green dragonfly (which she caught on the wing seconds before the nest visit), fed the nestlings and departed with a white fecal sac.
- 1300: Female arrived at nest with one dark berry (lapalapa?) fed the nestling and departed with a dark fecal sac.
- 1320: Female arrived at nest with two dark berries (lapalapa?), fed the nestling and departed.



Male Puaiohi near nest site, 13 August 1983.

Photo by Jack Jeffrey

Only the female fed the nestling and apparently she was the only one of the pair to forage for food for it. The female was in the nest area with food from 3-10 min before she actually landed on the nest (with the exception of the visit at 1230 when she brought the dragonfly). She spent this time moving closer to the nest from one perch to another with great caution, spending up to 2 min. motionless on a branch before moving closer. Perhaps this slow approach was a response to our presence in the area. The nest visits were very brief, averaging 20 sec. The nestling remained hidden and quiet in the nest while the female was away, but made loud, high pitched "peeping" sounds when she was present. The male remained in the immediate area during the observation period and gave the single note call (alarm note?) fairly frequently. It is possible that he did not forage for food or feed the nestling because of our presence in the vicinity of the nest.

At 1305 we observed an immature bird, presumably the one seen the day before, about 20 m from the nest site. Both adults approached it and the three birds flew off together in the direction of the small bog north of the stream. The presence of this immature in the area suggested that it was from an earlier brood of this pair and that the active nest was their second nesting of the season. The age difference between the fully fledged immature and the nestling seemed to be too great for the birds to be part of the same clutch. Also, the date of this nest, mid-August, indicates a second clutch. The Keplers (1983) found the first known nest (with nestlings) in mid-May. We note, however, that David DeSante (pers. comm.)



Female Puaiohi and chick at nest, 13 August 1983.

Photo by Jack Jeffrey

has observed juvenile plumaged Hermit Thrushes (*Catharus guttatus*) come from outside his study area and attend adults who still had young in the nest.

The nest site utilized by this pair of Puaiohi was almost identical to that of the nest discovered by the Keplers (1983). The 1981 nest was located in the opening of a cavity 1.3 m above the ground on a well-vegetated, 6 m high earth bank about 12 m from a stream. The Keplers were able to collect nest material and found that the nest "was constructed primarily of bryophytes and miniscule ferns, interwoven with small lengths of fine grass."

The Keplers (1983) suggested that the structure and location of the nest of the Small Kauai Thrush was consistent with Pratt's (1982) contention that Hawaiian thrushes are closely related to New World solitaires (*Myadestes*), which build similar nests in niches or cavities. They also discussed the apparent advantages that this nesting strategy has for successful breeding in the inclement climate of the Alakai Plateau. Our discovery of a nest almost identical to the one they found is additional evidence that cavity nesting is typical for the species, and further strengthens the hypothesized *Phaeornis-Myadestes* relationship.

Acknowledgements

We thank C.B. and A.K. Kepler for plant identifications and comments on the manuscript, H. D. Pratt for comments on the manuscript, and P. Sykes and D. DeSante for unpublished information.

Literature Cited

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 Pratt, H. D. 1982. Relationships and specificatio of the Hawaiian thrushes. *Living Bird* 19:73-90.

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Puaiohi nest site, 13 August 1983.

Photo by Jack Jeffrey

NINE VERTEBRATE SPECIES DETERMINED ENDANGERED ON GUAM AND THE NORTHERN MARIANA ISLANDS

Seven bird and two bat species were added to the Federal endangered species list on 27 August 1984. The species are all endemic to the Mariana Archipelago, which includes the island of Guam in the south and Rota, Agiguan, Tinian, and Saipan to the north. Guam is a territory of the U.S. and the others are part of the Commonwealth of the Northern Mariana Islands.

Five of the species occur only on Guam. These are the Guam Broadbill (*Myiagra freycineti*), Bridled White-eye (*Zosterops conspicillata conspicillata*), Micronesian Kingfisher (*Halcyon cinnamomina cinnamomina*), Guam Rail (*Rallus owstoni*), and Little Mariana Fruit Bat (*Pteropus tokudae*). The four bird species were found throughout the island in the 1950s, but by the 1970s they were limited to only the northern one-third of Guam with the majority restricted to the habitat on Andersen Air Force Base. All four birds are now on the verge of extinction. It appears that this drastic decrease in range corresponds with the south-to-north expansion of the range of the introduced Brown Tree Snake (*Boiga irregularis*), a primarily arboreal species known to eat both birds and their eggs. Other factors, such as the possibility of a yet-undefined avian disease, may also be contributing to the decline of these endangered species. Federally and locally funded studies are now underway to both discover the reason (or reasons) for the birds' decline on Guam and to recommend actions which will help in their conservation. The Little Mariana Fruit Bat, always considered rare on Guam, has not been seen there since the 1960s.

The other species listed as endangered include the Mariana Gallinule (*Gallinula chloropus guami*), Mariana Crow (*Corvus kubaryi*), Vanikoro Swiftlet (*Aerodramus vanikorensis bartschi*), and the Guam population of the Mariana Fruit Bat (*Pteropus mariannus mariannus*). Small populations of the gallinule are found in wetlands on Guam, Tinian, and Saipan. Although over 1000 crows were estimated to occur on Rota in 1982, their numbers and range have decreased dramatically on Guam in a pattern similar to that of other forest birds there. The swiftlets were once commonly found on all the islands of the southern Marianas; now they are nearly gone from Guam, Rota and Tinian,

are thought to be declining on Saipan, and are found in abundance only on Agiguan. The Guam population of the Mariana Fruit Bat has fallen substantially, primarily as a result of deliberate shooting by some Islanders for use as a traditional food source, and the species is now restricted mainly to the cliff-line forests in the northern part of the island (only the Guam population of this bat was included in the August 27 listing).

United States Federal agencies are required under the Endangered Species Act to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species. Recognition gained through listing is intended to encourage and result in conservation actions by governmental agencies and private agencies, groups, and individuals.

Editors' Note: The above was adapted from a USFWS news release dated 31 August 1984 and from the USFWS Final Rule (Federal Register 49(167):33881-33885); see the latter for details on these species and other Guam and Northern Mariana species considered for listing.

PUU WAAWAA LEASE VIOLATIONS

For the last year or so, the Hawaii Audubon Society and the Conservation Council for Hawaii have been looking into allegations of violations of land use regulations and lease provisions by the current leasee of state lands at Puu Waawaa Ranch, Kona, Island of Hawaii. On October 12, the state Board of Land and Natural Resources took action on the matter, including withdrawal of some leased lands considered important habitat for the Hawaiian Crow, the 'Alala. Look for a full review of this situation in an upcoming issue of 'Elepaio.

SUPPORT WILDLIFE CONSERVATION

To report wildlife violations, call the Division of Conservation and Resources Enforcement offices on Oahu and the neighbor islands at these telephone numbers: Oahu 548-2861; Hawaii 961-7291 (Hilo), 323-3141 (Kona); Kauai 245-4444; Maui 244-4352; Molokai 567-6618; Lanai 565-6688. After hours, on weekends and on holidays, report Oahu violations to the Conservation Hotline at 548-5918. Neighbor island calls may be made toll-free by calling Enterprise Operator 5469.

short paragraph with pertinent information about the species. Available at the retail price of \$4.00 from Bishop Museum, Hawaii Grafix, and Foster Botanical Garden, the calendar makes a thoughtful gift for family and friends, or something to brighten up your office. The artist is known for his beautiful color poster of the 'Alala (Hawaiian Crow) which was featured in the August 1984 issue of '*Elepaio*. He will be at the HAS meetings to sign the calendars as you purchase them. Mr. Ching will donate a portion of the proceeds from sales to the Hawaii Audubon Society for its work in education and conservation.

NOMINATING COMMITTEE REPORT

The Society's 1984 Nominating Committee (Sheila Conant (Chair), Suzanne Harada, Norris Henthorne and Rick Warshauer) has settled on the slate of officers it will nominate for the December elections of next year's Board of Directors. For the first time in years, the Committee members themselves had to vote to choose the selections from those willing to serve, who this year outnumbered the available Director positions. This is the slate that will be offered by the Nominating Committee:

| | |
|--------------------------|------------------|
| President: | Sheila Conant |
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| | Carl Christensen |
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| | Carl McIntosh |
| | Ray Tabata |
| | Rick Warshauer |

Should any member wish to nominate additional "write-in" candidates, the Bylaws do allow for this possibility. The nominator must send, in writing, his or her nomination to the Nominating Committee (c/o Sheila Conant, 2450 Campus Road, Honolulu, HI 96822 or c/o Hawaii Audubon Society, P.O. Box 22832, Honolulu, HI 96822) so that it is received by 21 November 1984. The nominator should also include a two or three line bibliography of the candidate that will be published on the ballot that goes out with the December 'Elepaio. The written nomination must be accompanied by, or the Committee must receive, also by November 21, written consent of the person being nominated that he or she is willing to run for election and to serve on the Board of Directors.

VOTE BY MAIL

Local and joint-with-National members may vote in the election of officers without being present at the HAS annual meeting. We encourage all eligible members to participate in the mail-in vote, especially if a member is not able to attend the annual

meeting (votes may also be handed in at the beginning of the annual meeting). Eligible members include Joint Members, Local Members residing in Hawaii and the Pacific Basin, and Local Members residing on the mainland who have been Local Members continuously since 1976.

Members will find their ballot and HAS envelope in the December issue of the 'Elepaio. The ballot should be returned promptly in order to be counted at the December annual meeting, which is generally on the 3rd Monday of December.

Mainland members (not subscribers; subscribers may not vote) who wish to vote should immediately request a ballot by first class mail. The 'Elepaio is mailed 3rd class and many mainland members might not get their ballots on time if they wait for the December issue. If a mainland member requests a ballot, a ballot will be sent via first class mail, and should be received in time for voting.

Since all Hawaii Audubon annual memberships expire on 31 December 1984, Local Members may wish to return their 1985 dues along with their ballot. Joint Members will receive an invoice from National Audubon.

ALOHA TO NEW MEMBERS

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

Joint (Hawaii and National): B.W. Adams, Honolulu; Ms. Mimi Atwood, Kailua-Kona; Karen Beruan, Honolulu; Cathie Bradley, Honolulu; Mr. and Mrs. Robert Brent, Honolulu; Kathy E. Dunlap, Lahaina; Mr. Andrew Engilis, Honolulu; Thomas Fletcher, Honolulu; G.B. Hamilton, Ewa Beach; Herbert Ho, Honolulu; Eua Y. Johnston, Honolulu; Heidi Kuwahara, Pukalani; Susan R. Lautenslager, Kailua; Lippert, Haleiwa; D. Lutkenhouse, Hilo; Mr. Edwardo J. Manzano, Honolulu; Ann C. McGuire, Elizabeth, New Jersey; J.A. Metheany, Hilo; Todd Morris, Flint, Texas; Lily and Prithwish Neogy, Honolulu; Tanya Nomura, Wailuku; Ms. D.L. Oshaughnessy, Honolulu; Anthony E. Panico, Honolulu; Michael Pierner, Lahaina; Diane F. Poche, Kailua; June Rubenstein, Honolulu; Lillian A. Saito, Kahului; K. Sull, Pearl Harbor; Mr. Andrew Szentgyorgyi, Kula; C. Takano, Aiea; Robyn Toy, Wailuku; Mrs. William A. Walden, Honolulu; Sarah L. Wei, Honolulu; M. Williams, Wahiawa.

Kammy Wong

NOVEMBER PROGRAM: RIDING THE PLANKTON -- IT'S A WORM'S LIFE!

Dr. Randy Day, Associate Professor of Biology at the Hawaii Campus of Brigham Young University, will present an illustrated talk about the larvae of marine polychaete worms (segmented worms related to those familiar backyard denizens -- earthworms). Dr. Day has been studying reproduction, evolution and energetics of the immature forms of these worms, which ride in the plankton before settling down to take up residence in the shoreward zones of the sea. Polychaete worms are among the sea's most beautiful animals, and some have even been found to produce cancer-fighting substances. Dr. Day will speak to us about their special adaptations for the interesting lives they lead.

The meeting will be held at the McCully-Moiliili Library, 2211 S. King St., Honolulu, beginning at 7:30 p.m. on Monday, 19 November. Everyone welcome!

ENDANGERED SPECIES UPDATED LIST AVAILABLE

A new comprehensive List of Endangered and Threatened Wildlife and Plants, updated through July 20, 1984, is now available. This 24-page document contains the names of all organisms currently protected by the United States under the Endangered Species Act of 1973, as amended. It also contains a section on those species that have been removed from the list since 1973. Copies of the list can be requested from the Publications Unit, U.S. Fish and Wildlife Service, Washington, D.C. 20240.

BACK ISSUES OF 'ELEPAIO

Current prices for back issues of *'Elepaio* are listed below. Actual postage charges for shipping will also be added on to these prices.

Vol. 41, No. 1 (July 1980) to present:

50¢ per issue, \$5.00 per volume

Vol. 1 through 40 (1939 to 1979):

\$1.00 per issue, \$10.00 per volume
(5 or more volumes: \$8.00 per volume)

Vol. 1 through 43 (complete set: 1939 to June '83)

\$350.00 for the complete set

1984 CHRISTMAS BIRD COUNTS

Dates have been set for some of the 1984 Christmas Counts. On Kauai, the Lihue Count will take place on December 15 (contact Winona Sears, 822-3045). On Oahu, the Honolulu Count will occur on December 16 (contact Robert Pyle, 262-4046) and the Waipio Count is set for December 22 (contact David Bremer, 623-7613). On Hawaii, a count will probably be scheduled for Volcano. A count may also be planned for Maui.

PUBLICATIONS OF THE SOCIETY

HAWAII'S BIRDS by the Society (1984). This is the best field guide to our birds, and includes colored illustrations of all native and well-established nonnative species..... \$4.95 plus postage: 85¢ (surface mail) or \$1.03 (air). Hawaii residents only: add 20¢ for tax.

FIELD CHECKLIST OF BIRDS OF HAWAII by R. L. Pyle (1976). A pocket-size field card listing 125 species found in Hawaii with space for notes of field trips.
(Postpaid).....\$.25
(ten or more, 10¢ per copy)

GUIDE TO HAWAIIAN BIRDING by members of the Society and edited by C. J. Ralph (1977). Where to go and some idea of what you are likely to see. For the islands of Kauai, Oahu, Lanai, Molokai, Maui and Hawaii
(Postpaid).....\$1.50

CHECKLIST OF THE BIRDS OF HAWAII by R. L. Pyle (1983). An authoritative compilation of all species naturally occurring in Hawaii as well as those introduced by man which are currently established as viable populations. Gives each species' status.
(Postpaid).....\$2.00

'ELEPAIO BY AIRMAIL

Members and subscribers wishing to have the *'Elepaio* sent by airmail to addresses outside Hawaii may now obtain this service by remitting the additional amount needed to cover airmail postage costs. These amounts for 12 monthly issues are:

U.S. and territories and Canada.....\$4.50
Central America, Caribbean.....\$12.50
S. America, Europe, Africa, Pacific
and Asia.....\$14.50

NOVEMBER FIELD TRIP: KAPIOLANI PARK

The Sunday, 18 November, field trip will visit Kapiolani Park. This is a good chance for observers to prepare for the upcoming Christmas Bird Counts since the birds we will see at the park are many of the exotic species normally seen on the Christmas counts. Some of the more spectacular exotics, e.g. parrots, may also be seen.

Participants should bring binoculars (if available), and hat. Water and food are optional (they can be obtained at the park). Meet by 7:30 a.m. in front of the Waikiki Aquarium, 2777 Kalakaua Avenue (but do not park in the Aquarium parking lot). The trip leader is Mike Ord; if you need more information, call him at 737-2535.

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Special rates for full-time students and Senior Citizens (65 years of age or older) are available. Please write for application form.

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| Life (payable in three equal annual installments)..... | 150.00 |

All Local Memberships and Subscriptions are for a calendar year January through December. New Local Members and late-renewing members who send in dues through September may obtain all previous issues of 'Elepaio in that calendar year, upon request and reimbursement to the Society for mailing costs. Dues received after September are applied to membership extended through the following calendar year, but do not include previous issues of 'Elepaio in the current year.

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CALENDAR OF EVENTS

- Nov. 12 (Mon.). Board meeting at the home of Alan Ziegler, 45-636 Liula Pl., Kaneohe. Begins at 7 p.m. Call 247-5318 for information.
- Nov. 18 (Sun.). Field trip to Kapiolani Park with Leader Mike Ord. See page 39 for details.
- Nov. 19 (Mon.). General meeting at the McCully-Moiliili Library, 2211 S. King Street, at 7:30 p.m. Dr. Randy Day on *Riding the Plankton -- It's a Worm's Life*.

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