

'ELEPAIO

Journal of the
Hawaii Audubon Society



For the Protection of
Hawaii's Native Wildlife

VOLUME 39, NUMBER 6

DECEMBER 1978

MICRONESIAN MEGAPODE REDISCOVERED ON SAIPAN

by H. Douglas Pratt and Phillip L. Bruner

The Micronesian Megapode (*Megapodius laperouse*) is an endangered bird species found in the Mariana (*M. l. laperouse*) and Palau (*M. l. senex*) Islands of the western Pacific. Probably because of egg predation by man (Greenway 1967), these birds have not fared well on islands populated by subsistence-economy man. Megapodes construct large, conspicuous mounds of earth, rock, or sand in which to lay their eggs. Heat from the sun and from decaying vegetation placed in the mound with the eggs is sufficient for incubation. Parental care of the young is minimal or nonexistent. The mounds are frequently located on beaches where they readily fall prey to prying human hands. Adult birds are seldom taken (Baker 1951). Thus the nominate race of this species has gradually disappeared from the larger, inhabited islands of its former range throughout the Marianas. Baker (1951) documented its disappearance from Guam before the twentieth century and from Rota, Tinian, and Saipan somewhat later, with none recorded on these islands since about 1930. Falanruw (1975) reported megapodes only from the smaller islands north of Saipan and from Aguijan (south of Tinian), where Robert P. Owen (pers. comm.) saw megapodes in 1955. We did not find any on Guam, Rota, or Tinian during a previous visit in 1976. However, Owen (pers. comm.) received unconfirmed reports from residents of Tinian that megapodes were present there in 1974. On Saipan, we did not identify the bird in 1976, but in retrospect several large, unseen birds we flushed from the ground along the Bañadero Trail below Suicide Cliff may have been megapodes.

Saipan is the most populous and most developed of the Marianas north of Guam. Thus we were quite amazed to find Micronesian Megapodes there in the summer of 1978. We were observing and tape recording birds in the Marpi area of northern Saipan early in the morning of 6 July. Each of us, working independently

in the forests below the infamous Suicide Cliff, heard what we believed to be calls of megapodes. We had spent the previous week at Palau, where we had become familiar with the vocalizations of the megapode. Pratt was able to tape record a lengthy series of vocalizations of the Saipan birds and by playback was able to lure the birds into view to confirm the identification. These recordings constitute physical documentation of the Micronesian Megapode's occurrence on Saipan since they also contain, among the megapode calls, voices of a combination of species unique to the island (e.g. *Cleptornis marchei*, *Ptilinopus roseicapillus*, *Zosterops c. conspiciellatus*, etc.). The recordings will be deposited at the Library of Natural Sounds, Cornell University Laboratory of Ornithology. On every morning visit to this site between 6 and 10 July, we either heard or saw megapodes in the forest. In addition, Bruner saw a single bird just north of Profile Beach on the eastern side of the island on 6 July.

Vocalizations and Behavior

The voice of the Micronesian Megapode in the Marianas has not been previously described, but Marshall (1949) discusses that of the Palau bird. Calls of the two subspecies differ somewhat but are similar in overall pattern and quality. On Saipan, foraging megapodes utter a loud *skeek* at intervals. Occasionally the calls become more frequent and build in intensity to a loud "crow": *Skeek - keek - keet!* This vocalization is often answered by a second bird with a rising series of low, chuckling notes: *kuk-kuk-kuk - kuk - kuk - keet - KEET!*, resembling the cackle of a hen but terminating in loud notes similar to those of the first bird's "crow." This performance is regular enough that it probably serves as a means of contact between a foraging pair, as suggested by Falanruw (1975).

Perhaps one call is given by the male, the other by the female. Megapodes on Saipan were most vocal in the early hours after dawn and fell silent after about mid-morning.

Greenway (1967) summarized the limited information on the Micronesian Megapode's habits. Although generally considered poor fliers, the birds do take to the wing when disturbed or pursued. Their takeoff is rather noisy and apparently labored, but we have seen the Palau subspecies fly distances of several kilometers between small islands seemingly without difficulty. Bruner flushed two megapodes from a tree at dawn on 8 July, so the birds probably roost in trees. The bird attracted by playback of calls on 6 July responded by flying to a perch about 5 m over the trail but quickly dropped down to the ground. The birds are very agile on foot and progress rapidly over the jagged coral rubble of the forest floor.

Status and Conservation

Whether the Micronesian Megapode was never fully extirpated on Saipan, or whether our recent sightings are the result of a recolonization, cannot be determined. We favor the latter possibility, however, in view of the severity of the World War II struggle for control of the island. Habitat destruction was extreme (Baker 1946) and survival of a relatively large, edible bird under siege conditions seems highly unlikely. Furthermore, competent observers searched for the birds since the war without success (Marshall 1949; Owen, pers. comm.). Yet we found the birds to be relatively conspicuous because of their loud calls in 1978.

We observed at least seven Micronesian Megapodes in northern Saipan. This number probably reflects only a small fraction of the total population present since apparently suitable habitat covers at least a third of the island. Still, the number of megapodes on Saipan may not be large. The discovery of this Endangered Species on this island, after an apparent absence of half a century, is particularly significant for the species' prospects for survival. Saipan is modernizing rapidly with an expanding tourist industry. Its people have now irrevocably embraced a cash economy, making essentially obsolete such activities as the gathering of megapode eggs for food. Most present-day residents of Saipan would not recognize a megapode nest mound. Thus the factor that most contributed to the birds' original demise (Greenway 1967) has been removed.

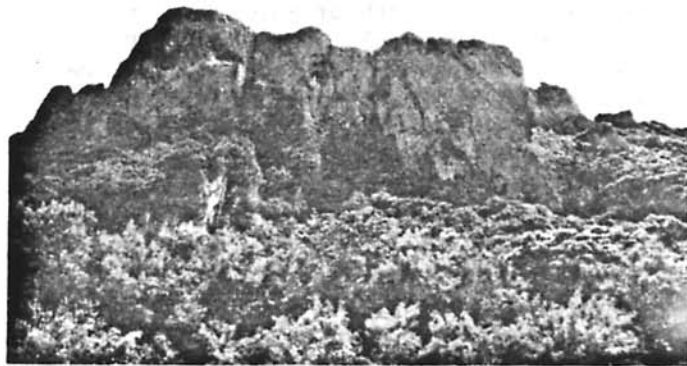
But the very developments that remove the

older threat may create a new impediment to the species' recovery. Most of our sightings occurred in an area heavily visited by tourists. We first found the birds within 100 m of the Last Japanese Command Post, a site visited almost daily by tour buses. Such visitation probably is not inimical to the megapode's existence. However, if increasing tourism results in construction of visitor facilities (hotels, condominiums, golf courses, etc.) in the Marpi area, with the usual disregard for native flora and fauna, this intriguing species could once again disappear from the island. But ecologically sound management of the area, along with measures to educate both residents and visitors about natural history, could make the megapode itself a tourist attraction. Fortunately, most of Marpi is public property, and developers must observe the strictures of the Endangered Species Act of 1973.

Certainly, our observations are a basis for some optimism for at least one Endangered Species. With the reappearance of the Micronesian Megapode, the original known avifauna of Saipan is intact, an almost miraculous situation, considering the island's sad history. We hope that future developments will take into account the preservation of this unique natural heritage.

Acknowledgements

Our visit to Saipan in 1978 was subsidized by grants from the Frank M. Chapman Memorial Fund, Louisiana State University Museum of Zoology, and Brigham Young University Hawaii Campus. Recording equipment was furnished by James Gullede of the Cornell



Suicide Cliff, Saipan. Site of rediscovery of Micronesian Megapode.

Photo by R.J. Shallenberger

University Laboratory of Ornithology.

Robert P. Owen Chief Conservationist of the Trust Territory of the Pacific Islands, willingly shared his knowledge with us.

Literature Cited

- Baker, R.H. 1946. Some effects of the war on the wildlife of Micronesia. Trans. 11th N. Amer. Wildlife Conf.: 205-213.
- Baker, R.H. 1951. The avifauna of Micronesia, its origin, evolution and distribution. Univ. Kansas Publ. Mus. Nat. Hist. 3:1-359.
- Falsenruw, M.V.C. 1975. Distribution of the Micronesian Megapode *Megapodius laperouse* in the Northern Mariana Islands. *Micronesica* 11: 149-150.
- Greenway, J. C., Jr. 1967. Extinct and vanishing birds of the world. Dover Publ., Inc. New York. xvi + 520 pp.
- Marshall, J.T., Jr. 1949. The endemic avifauna of Saipan, Tinian, Guam, and Palau. *Condor* 51:200-221.

*Museum of Zoology
Louisiana State University
Baton Rouge, Louisiana 70893*

*Division of Math and Natural Science
Brigham Young University Hawaii Campus
Laie, Hawaii 96762*