



Records of Small White Egrets in Hawaii and Samoa With Notes on Identification

by J. Michael Scott¹, Robert Pyle², and Richard Coleman³

Within the past seven years, several small white egrets or herons (other than Cattle Egrets *Bubulcus ibis*) have been seen in Hawaii. In this paper, we report on those observations as well as two recent sightings on Rose Atoll, American Samoa. We also summarize available information on the diagnostic field characters of small white herons and egrets which may occur in the Pacific (Table 1).

A small white egret was observed by Scott from 15 to 20 January 1975 at Mohouli Pond in Hilo, on Hawaii Island. He studied the bird in good light for extended periods with 8-10x binoculars and a 10-40x scope at distances of 10 and 30 m. Based on the snow white plumage, black legs, yellow feet, yellow lores and black bill, the bird was initially identified as being either Snowy Egret (*Egretta thula*) or Little Egret (*E. garzetta*). No nuptial plumes were seen. Other species considered were Cattle Egret, immature Little Blue Heron (*E. caerulea*), white phase Eastern Reef Heron (*E. sacra*), Chinese Egret (*E. eulophotes*), Intermediate Egret (*E. intermedia*) and Great Egret (*Casmerodius albus*). These possibilities were eliminated on the basis of size or soft part colors.

A yellowish-green stripe up the back of each leg extending above the tibiotarsus indicated that this bird was immature (R. Clapp pers. comm., Grant et al. 1980). While we found references to yellowish stripes up the back of the legs of *E. thula* (Palmer 1962, Grant et al. 1980, Oreel 1979), we failed to find specific references to this character for *E. garzetta* and one reference citing its absence at least in the European populations (Grant, et al. 1980). Photographs and descriptions of the bird were sent to field workers in North America, Europe and Australia. They were of the opinion that birds of these two species are very difficult to distinguish when not in breeding plumage. The literature concerning field identification of Little and Snowy Egrets is confusing. Palmer (1962), Cramp (1977 a and b) and Curry-Lindahl (1971) consider nonbreeding birds to be indistinguishable in the field as does R. Clapp (pers. comm.). The soft part colorations overlap completely. Curry-Lindahl (1971) considered them to be the same species. However, they are considered separate species in the 6th edition of the AOU check-list (B. L. Munroe pers. comm.). It has been suggested that breeding plumage birds can be separated by the recurved scapular plumes of the Little Egret (Palmer 1962), but more recently Oreel (1979) and Grant et al. (1980) have shown that the scapular plumes of the Snowy Egret are also recurved. These same authors indicate that the presence of a yellowish stripe extending above the tibiotarsus is indicative of *E. thula*

especially when combined with bright yellow lores. Yellow lores have been suggested as being indicative of *E. thula* but P. Rothlisberg (pers. comm.) found this same color character in Australian examples of *E. garzetta*. Thus, the identification of this bird remains as being either Snowy or Little Egret (but see discussion).

Coleman found a small white egret at Nuupia Pond in Kailua, Oahu on 6 March 1980 (Fig. 1, Pyle and Ralph 1981, Pyle 1981, Pyle and Ralph 1982). He and several other observers (R. Pyle, R. Shallenberger, P. Donaldson) saw this individual there during ensuing weeks until the last sighting on 31 March. This egret was fully adult with a tuft of fine nuptial plumes, bright yellow lores, and bright yellow feet contrasting with the black legs. The well-developed tuft of nuchal plumes distinguished the bird from a Little Egret, which have only two lanceolate-like nuchal plumes. This bird is thus the first satisfactory record of Snowy Egret (*E. thula*) for Hawaii.

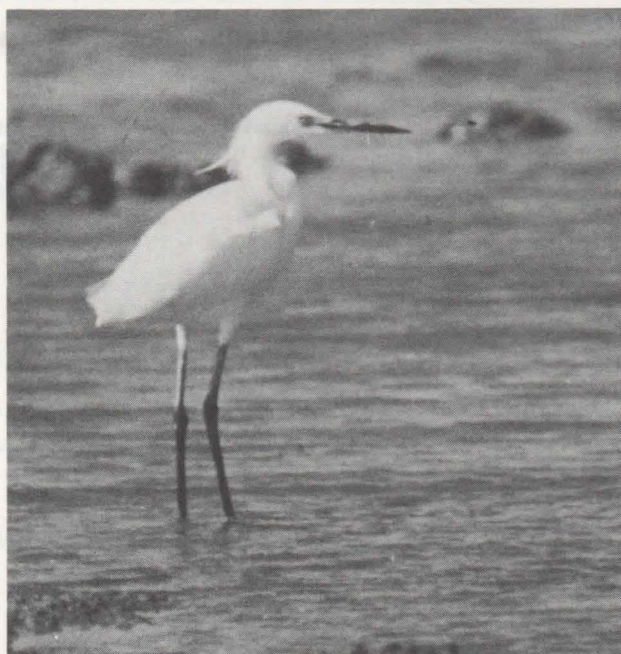


Figure 1. Breeding plumage Snowy Egret, Nuupia Pond, Kailua (Oahu), Hawaii, March 1980. Photo by R.J. Shallenberger.

Three more small White Egrets reached Hawaii before the year 1980 ended (Ralph and Pyle 1981, Pyle and Ralph 1982). In December 1980, two were discovered at Kanaha Pond, Maui I., and one at Aimakapa Pond near Honokohau, Hawaii I. All three remained into 1981 and were seen by several observers.

On Maui, Mr. and Mrs. J.R. Fletcher, visitors from Seattle, WA, first reported seeing one bird at Kanaha Pond on 5 December at 15:30. The observers are quite familiar with egrets on the mainland, and recognized it immediately as being of the Snowy Egret type, rather than a Cattle Egret. The bird was seen with binoculars at about 100 meters distance under excellent light conditions. It was wading and actively feeding along the main pond opposite the observation pavilion. Its legs and feet were not seen clearly. The Fletchers based their identification on the black bill and slender neck, and on its being quite unlike a Cattle Egret in posture and active feeding behavior.

The Fletchers reported the bird to Cameron Kepler of Kula, Maui, who visited Kanaha Pond on 11 December. He found two egrets perched in dead branches at the edge of the pond near the sewage plant. The black legs and yellow feet were clearly seen. The two birds were seen in the same place on 7 March 1981 (P. Bruner), and again on 20 March (H.D. Pratt, Jr. and other members of the Cincinnati Nature Center). Leg and feet colors were clearly noted, and also the bright yellow

lores. Nuptial plumes were not seen. The birds were not photographed as far as is known.

The bird at Aimakapa Pond was first seen by Peter Paton at 06:30 13 December 1980 at the back edge of the pond. It quickly darted back and forth in the water and stabbed at prey. Twelve Cattle Egrets that were roosting in a small bush nearby flew off and headed inland. As the last Cattle Egret departed, the different egret followed; but two minutes later it returned alone and alighted again at the far edge of the pond. It was still present at 08:00 when Paton left. The next day Paton returned with Dawn Breese and Rena Wenkart. They found and photographed the bird, which was feeding in the same area at the back edge of the pond. According to Paton the bird was slightly larger than the Cattle Egrets, and was all white with a long, slender neck. The bill was black with a slight bluish-gray tinge to the lower mandible at its base. The iris was maroon red, and the area between the eye and the bill was bright yellow. No head plumes were visible. The legs were long and black, with a bright yellow stripe running up the back of each leg to well above the tibiotarsus. The feet were fairly bright yellow.

Later observations of the egret at the same place were made on 26 January and 8 February (Paton, Laurie MacIvor), 22 March (Douglas Pratt and members of the Cincinnati Nature Center), April 12 (Paton) and 18 April (Peter and Robert Pyle, Philip Henderson), all in 1981. Paton did not see it

TABLE 1. Diagnostic field markings of adult small white herons which may occur in the Pacific. Height measurements are taken from Hancock and Elliot (1978). Soft part coloration is taken from Hancock and Elliot (1978) and Palmer (1962).

MORPHOLOGICAL FEATURES	SNOWY EGRET (<i>Egretta thula</i>)		LITTLE EGRET (<i>E. garzetta</i>)		CHINESE EGRET (<i>E. eulophotes</i>)
	Breeding	Juvenal	Breeding	Juvenal	Breeding
Feet	yellow	yellow	greenish-yellow (some races black)	greenish-yellow	feet black with yellow toes
Legs	black	black or dark greenish-gray frequently w/ yellow stripe up back	black	black	black
Eyes	yellow	yellow	yellow	yellow	yellow
Lores	yellow or reddish or pale pink at peak of season	yellow	greenish-yellow ¹ gray, yellow or orange-red at peak of season		blue
Bill	black	black	black	black	yellow
Size	56-66 cm (22-26")		55-65 cm (22-26")		68 cm (27")
Nuptial Plumes	many nuchal plumes, noticeably recurved scapular plumes	none	two long, lanceolate nuchal plumes; recurved scapular plumes	none	luxuriant nuchal plumes; lanceolate- like plumes on breast, dorsal much like those of <i>garzetta</i>

1. Variable with subspecies.

there on subsequent visits.

The Maui birds as well as the Hawaii I. bird at Aimakapa Pond were reported as Snowy Egrets in American Birds (Ralph and Pyle 1981, Pyle and Ralph 1982).

A small white egret has been seen twice by U.S. Fish and Wildlife Service personnel on Rose Atoll National Wildlife Refuge, 240 km ESE of Pago Pago, American Samoa. Coleman reported one sighting when visiting this island on 29 March 1978. This bird was observed to have a black bill, yellow lores, black legs with no yellow stripe up the back, and yellow feet, all indicating it to be either Snowy or Little Egret. No nuptial plumes were seen. Later, Shallenberger (pers. comm.) also recorded a small white heron or egret standing with two Reef Herons on the reef flat south of Rose Atoll during a visit to the Refuge in November 1980.

Based on our review of the literature and correspondence with other workers, we feel that only the bird on Oahu can safely be identified to species. Statements that "Snowy and Little Egrets if devoid of traces of breeding finery may indeed be sometimes indistinguishable even in the hand" (Hancock and Elliot 1978), or "there is complete overlap in coloration of soft parts" (R. Clapp pers. comm.) lead us to leave the identification of the other small white egrets as either *E. thula* or *E. garzetta*.

It seems more likely, however, that the birds on the islands of Maui and Hawaii were *thula* rather than *garzetta*. Most

migrants and stragglers in Hawaii are North American in origin (85%) and the Maui and Hawaii birds occurred during the period when North American migrants are found in Hawaii. Also, the subspecies of Little Egret in Taiwan and the Philippines (*E. garzetta nigripes*), the most likely one to stray to Hawaii, has feet that are black or intermediate between black and yellow with greenish soles. If the yellowish stripe up the leg combined with bright yellow lores is proven to be a definitive field mark for *E. thula* then all of the birds recorded for the main islands could be identified.

We strongly urge those in a position to do so to record the soft part colors of *E. thula* and *E. garzetta* to document more fully the areas of overlap and separation. What is badly needed is a simple tabulation of say 100 birds of each species indicating soft parts coloration. Especially useful would be indication of the co-occurrence of yellowish lores and yellow feet and the color and extent of any stripes on the legs in populations throughout each species range. We further urge future observers of small white herons or egrets in the central Pacific to carefully record colors of all soft parts and to note particularly whether or not nuptial plumes are present when fully documented the use of two or more characters may allow accurate identification of a species where only one of them would not. We hasten however, to caution observers to keep in mind that identification to species may not be possible for these

TABLE 1. (Continued)

SPECIES					
CHINESE EGRET (<i>E. eulophotes</i>)	WHITE PHASE EASTERN REEF HERON (<i>E. sacra</i>)		INTERMEDIATE EGRET (<i>E. intermedia</i>)	LITTLE BLUE HERON (<i>E. caerulea</i>)	CATTLE EGRET (<i>Bubulcus ibis</i>)
Juvenal	Juvenal	Breeding	Juvenal(?)	Juvenal	Juvenal
toes yellow not bright	yellowish-green or green, never yellow	greenish-yellow	black	greenish	yellow
yellowish-green	variable, yellowish to pale olive-green to olive-green	yellowish-green	yellow above tarsal joint; black on tarsi	greenish	dark yellowish- green, black
pale yellow	yellow	yellow	pale yellow	pale yellow	yellow
yellow-green	olive-green	yellowish-green	yellowish	dull greenish	yellow
dusky-yellow	variable dull maize to olive green-yellow to creamy yellow	yellow, often with dusky tip	orange-yellow	bluish-gray, terminal third black; appears to be bicolored	yellow
	51 cm (20")		65-72 cm (25-29")	62-72 cm (24-29")	48-53 cm (19-22")
none	none	tuft on nape; short lanceolate and short and thick filamentous plumes on foreneck and back	none	none	none

small white herons or, indeed, for many other birds likely to be found in Hawaii and elsewhere in the central Pacific (Scott et al. 1978).

ACKNOWLEDGEMENTS

P. Rothlisberg, D. Vernon and R. Clapp went to considerable trouble to examine skins or wild birds in North American and Australia. We thank them for their efforts. Many helpful comments on field characters of small white herons were provided by P. Alden, D. Amadon, A. Craig, W.H. Drury, R. Palmer, H.D. Pratt, Jr. and C.F. Zeilemaker. We thank C.B. Kepler, P. Paton and Mr. and Mrs. J.R. Fletcher for use of their unpublished field notes. We thank R. Clapp, C.B. Kepler and H.D. Pratt, Jr. for their helpful comments on the preliminary draft of this paper. All photographs documenting these records have been placed with the rare bird photograph files of the Hawaii Audubon Society.

LITERATURE CITED

- Cramp, S. (ed.) 1977. Handbook of the birds of Europe, the Middle East and North Africa. The Birds of the Western Palearctic Vol. 1 Ostrich to Ducks. Oxford University Press, London.
- Cramp, S. 1977. Studies of less familiar birds 182, Little Egret. Brit. Birds 70:206-214.
- Curry-Lindahl, K. 1971. Systematic relationship in herons (Ardeidae), based on comparative studies of behaviour and ecology, a preliminary account. The Ostrich Suppl. No. 9:53-70.
- Grant, P.J., R.A. Hume, B. King, R. Payne, W. Russel and C.E. Wheeler. 1980. Bare-part colour of Snowy and Little Egrets. Brit. Birds 73:39-40.
- Hancock, J. and H. Elliot. 1978. The herons of the world. Harper and Row Publ. Inc., New York.
- Oreel, G. J. 1979. Field identification of Snowy Egret. Brit. Birds 72:128-129.
- Palmer, R.S. (ed.) 1962. Handbook of North American birds. Vol. 1. Loons through Flamingoes. Yale University Press, New Haven.
- Pyle, R. 1981. Hawaii bird observations, August 1979 through July 1980. 'Elepaio 41:72-79.
- Pyle, R. and C.J. Ralph. 1981. American Birds 34:817.
- Pyle, R. and C.J. Ralph. 1982. American Bird 36:222.
- Ralph, C.J. and R. Pyle. 1981. American Birds 35:337.
- Scott, J.M., R.H. Pyle and C.F. Zeilemaker. 1978. Similar species of migratory waterbirds in Hawaii. 'Elepaio 39: 1-5.

¹ U.S. Fish and Wildlife Service,
Patuxent Wildlife Research Center,
Mauna Loa Field Station,
P.O. Box 44,
Hawaii National Park, HI 96817

² 741 N. Kalaheo Avenue,
Kailua, Hawaii 96734

³ U.S. Fish and Wildlife Service,
P.O. Box 50167
Honolulu, Hawaii 96850

FIGHTING BEHAVIOR IN NESTING RED-TAILED TROPICBIRDS

by Ted N. Pettit

Territorial aggression and fighting among nesting adults have been cited as causes for nesting failure among members of the genus *Phaethon* (Stonehouse 1962, Snow 1965, Fleet 1974). Nest failure resulting from intraspecific strife may be high in areas of limited nesting habitat and high competition for nest sites (Snow 1965), but may usually be quite low for Red-tailed Tropicbirds (*Phaethon rubricauda*) in the Northwestern Hawaiian Islands where abundant nesting habitat generally exists. Thus, Fleet (1974) recorded only two cases of territorial interaction in two years of study on Kure Atoll. Both of these occurrences, however, resulted in the destruction of eggs by tropicbirds competing for the same nest site. A recent visit to Tern Island, French Frigate Shoals during the peak of nest-site selection and egg-laying provided me with opportunity to observe one instance of fighting among nesting Red-tailed Tropicbirds. The encounter occurred outside of the immediate nesting grounds and may have been related to an extended territory encompassing a common entrance and approach to nests lying beneath dense *Scaevola* vegetation.

Red-tailed Tropicbirds prefer to nest in the shade of bushes (Howell and Bartholomew 1962) but rarely establish themselves in the interior of vegetation more than 3 m from the perimeter (Fleet 1974). This preference may be related to their awkward form of locomotion on the ground. The short hindlimbs and reduced synsacral region make upright walking impossible (Howell and Bartholomew 1962). A lurching style of locomotion is thus utilized and



Figure 1. Fighting Red-tailed Tropicbirds on Tern Island, French Frigate Shoals, 18 March 1982.

Photo by Ted N. Pettit

appears to be energetically expensive. Fleet (1974) hypothesized that tropicbirds do not nest far into the interior of dense vegetation in order to avoid time-consuming and energetically expensive locomotion on the ground. Tropicbirds normally land close to their nest, occasionally crashing through the canopy of branches and leaves over the nest.

On 18 March 1982 at 1100 hours I observed two adult Red-tailed Tropicbirds facing one another and screaming loudly. Their humeri and wings were elevated in a defensive posture typical of this species (Howell and Bartholomew 1962). One bird was apparently attempting to exit from its nesting grounds via a small opening among the ground-level branches and was confronted by another tropicbird at the entrance. My presence in the area went unnoticed and the two birds soon began lunging savagely and thrusting their bills at each other. Within a few minutes the pair of combatants had locked bills and begun wrestling. The wings of each bird provided leverage as they twisted and forced each other into contorted positions. Within 15 minutes, blood was running freely down the necks of both individuals from wounds to the mouth, throat, and eyes (see Figure 1). During the ensuing hour of combat, the birds occasionally rested, with the bills remaining interlocked. Eventually the eye of one bird was swollen shut from wounds and blood coagulating around the eye. Intermittent guttural screams persisted throughout the encounter. After about 90 minutes of intense fighting, both tropicbirds separated and flew out to sea.

The entire event occurred about 4 m from the nearest nest. Two incubating tropicbirds were found under the nearby *Scaevola* on eggs in nests separated by about 3 m. Subsequent observations the next day revealed that one member of the fighting pair had returned and relieved its partner at the nest. One eye remained swollen and partially closed; traces of clotted blood remained on the neck and head. The second nest under the bush, presumably belonging to the other combatant, was occupied by a bird which showed no signs of having fought recently.

Although the incidence of fighting behavior among Hawaiian Red-tailed Tropicbirds may be low in areas of abundant nesting habitat, it is apparently not uncommon in the crowded conditions on Tern Island (Robert Schulmeister, 19 March 1982, USFWS Refuge Manager, French Frigate Shoals, pers. comm.). Territorial aggression may extend beyond the immediate boundaries of the nest site to favored entrances and paths to the nest. Successful dominance of favored approaches to nesting grounds may

help reduce later intraspecific competition for nesting territory.

ACKNOWLEDGMENTS

My stay on Tern Island was supported by Sea Grant funds (Grant #Na 81 AA-D-00070) administered by G.C. Whittow. I am grateful to J. Andre, R. Ittner, R. Schulmeister, S. Schulmeister, R. Ferguson, and M. Naughton for assistance during my stay. I thank the U.S. Fish and Wildlife Service and the State of Hawaii Division of Forestry and Wildlife for granting permits to conduct my research on Tern Island.

LITERATURE CITED

- Fleet, R.R. 1974. The Red-tailed Tropicbird on Kure Atoll. Ornithol. Monographs No. 16. 64 pp.
- Howell, T.R. and G.A. Bartholomew. 1962. Temperature regulation in the Red-tailed Tropicbird and the Red-footed Booby. Condor 64: 6-18.
- Snow, D.W. 1965. The breeding of the Red-billed Tropicbird in the Galapagos Islands. Condor 67: 210-214.
- Stonehouse, B. 1962. Tropicbirds (genus *Phaethon*) of Ascension Island. Ibis 103b: 124-259.

Department of Physiology
John A. Burns School of
Medicine
University of Hawaii
Honolulu, Hawaii 96822

LAYSAN DUCK RECOVERY PLAN

The Laysan Duck (*Anas laysanensis*) was among the three Endangered Species' Recovery Plans approved by the U.S. Fish and Wildlife Service in December 1982.

Details about the Plan can be obtained from: Richard Myshak, Portland Regional Director, Suite 1692, Lloyd 500 Bldg., 500 N.E. Multnomah St., Portland, Oregon 97232.

A brief summary of the Plan appeared in the February 1983 Endangered Species Technical Bulletin, Vol. VIII, No. 2., published by the U.S. Fish and Wildlife Service's Endangered Species Program.

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FIELD TRIP TO KUAOKALA

The Kuaokala Forest Reserve is located at the northwest end of the Waianae Mountains near Kaena Point. Access is through a USAF Satellite Tracking Station and requires a permit from the Division of Forestry and Wildlife.

On 13 February 1983, four of us left the State Library at 7:00 a.m. for the 40 mile drive to the Tracking Station. A few showers were falling as we drove down the H-1 freeway, but they soon ended and we enjoyed fine weather for the rest of the day. We reached the Tracking Station road at 8:00 a.m. where we were joined by nine other people. We signed-in at the guard post and drove up the narrow, winding, steep road to the parking area by the trailhead. Around the Tracking Station we saw Lesser Golden-Plovers, Zebra and Spotted Doves, a few Red-vented Bulbuls, Common Mynas and House Sparrows; we also heard one Northern Mockingbird.

At 8:45 a.m., we began hiking down the Mokuleia firebreak road--a very rough jeep road. The road descends into Manini Gulch and then climbs up a steep 1/2 mile grade out of the gulch. Vegetation in the gulch is mostly exotic, and exotic birds were abundant. We saw Shammas, Northern and Red-crested Cardinals, and House Finches; in addition, we heard many Japanese Bush-Warblers. Three members of the group found the climb out of the gulch too steep and turned back to wait for us at the cars. Those of use who made the climb were rewarded with a beautiful view of the North Shore.

As we continued through a series of gulches on the jeep road, there was a loud chorus of Shammas, Bush-Warblers, and Erckel's Francolins, but we saw none of these elusive birds. Since there are few native plants in this area, we were rather surprised when we did see an Apapane and an Elepaio near the road. When we hiked into the last gulch along the jeep road, we were confronted with a reminder of Hurricane IWA's destructive force. Large eucalyptus trees had been blown down along a 200 yard stretch of the road and we were forced to clamber through a tangle of trunks and branches. Shammas, Bush-Warblers, Nutmeg Mannikins, and mosquitos were abundant in this gulch.

After following the jeep road for about 2 1/2 miles, we turned off on a trail leading to the rim of Makua Valley. At noon, we stopped for lunch at a spot with a spectacular view of the valley. Several helicopter gunships were flying in the valley hundreds of feet below. It was like a scene from the movie "Apocalypse Now" as the gunships fired

rockets and machine guns at targets on the valley floor. Clouds of smoke billowed up and the sounds of gunfire echoed across the valley. Despite all the commotion, a tropicbird (species unknown) flew up the valley, high above the gunships.

After lunch, we followed the trail along the rim of Makua Valley back towards the Tracking Station. All along this section of the trail, there are beautiful views of Makua Valley and the Waianae Coast. Erckel's Francolins were cackling on the steep grassy slopes and a couple of them were glimpsed briefly. After a mile or so, the trail leaves the rim of the valley and descends through exotic forest. In this area some of the luckier members of the group managed to finally see a couple of the Japanese Bush-Warblers that had been so elusive all day. At 2:45 pm we completed our 4 1/2 mile loop and arrived back at the parking area.

Peter V. Donaldson

LECTURES ON PREHISTORIC

BIRDS OF HAWAII

Alan C. Ziegler, Ph.D., Head, Div. of Vertebrate Zoology, Bernice P. Bishop Museum, will give a lecture titled *Conservation or Extinction: Prehistoric Birds of Hawaii* on 7 April, 1983, Thursday, in the Dining Room of Kauai Community College's Campus Center from 7:00 to 8:30 p.m. On Oahu, the lecture will also be presented on 14 April, Thursday, on The Kamehameha Schools campus, Room 108 in Konia Building from 7:00 to 8:30 p.m. His lecture will be illustrated with 35-mm slides. The public is cordially invited to attend. There is no admission charge. A description of his lecture follows:

"Although the native Hawaiian birds that have been found alive during the past 200 years are a marvel to naturalists worldwide, it is now becoming apparent that Hawaii once had a prehistoric avifauna even more unusual than the historic one. The recent discoveries of the remains of these remarkable 40 or so new species, several of which were flightless, will be recounted; the various fossil sites on several of the Main Islands in the Hawaiian chain will be described. Also covered will be such topics as the probable reasons some Island species lost the power of flight, the possible ecology of predator and prey species, the apparent coexistence of the early Hawaiians with many of these prehistoric birds and the causes of extinction."

For more information, contact Dr. Alan C. Ziegler at 847-3511 or Puanani Kini at 842-8279 or 842-8297.

A PELAGIC BIRDING TRIP

DEC. 1982

From the 1st to the 3rd of December, 1982, the Pacific Seabird Group and the Australasian Seabird Group met in Honolulu. Several of the conferees were interested in a pelagic birding trip, so I made arrangements to charter the "Golden Eagle", a 57 foot fishing boat which operates out of Kewalo Basin on Oahu. The Captain had never taken out a group of birders before, but he was willing to give it a try.

At 7:00 a.m. on 5 December, seven of us left Kewalo Basin on the "Golden Eagle". The boat is a good observing platform. It has a roomy cockpit and a large, open flying bridge. The foredeck and side decks are also open, affording a good view in all directions. On some charter boats, the passengers are restricted to the cockpit.

I was the only birder aboard from Hawaii; the others in the group were from the mainland U.S., Canada and Iceland. The weather and sea conditions were amazingly good--there was hardly a cloud in the sky all day, the wind was light, and the sea was calm. Unfortunately, the light winds may have had a bad effect on the birding, since many seabirds like to soar over the waves on a nice breeze, but may remain on the water if there is no wind.

As we left the harbor, we saw the usual group of Brown Boobies perched on buoys or fishing near the shore. We checked out the area south of Sand Island where large flocks of seabirds can sometimes be seen from shore, but we saw only one Brown Booby in the area.

Next, we headed directly south. The Captain had been out the previous day and had heard about some flocks of seabirds south of Honolulu. Soon after we left the harbor, a large marlin broke the surface near the boat, making the crew regret that we were birding rather than fishing. Not long afterwards, we passed something even bigger swimming on the surface: a shark! As we continued south, one Pomarine Jaeger took off from the water as the boat approached. That was the last bird we saw for quite a while.

We continued cruising southward and around 10:30 a.m. we finally saw a small flock of birds in the distance. The Captain turned towards the birds, which seemed to be following a school of fish, and gradually we began to catch up with them. As we approached, we were able to identify three Red-footed Boobies, two Pomarine Jaegers, one Brown Noddy, two White Terns, and four Wedge-tailed Shearwaters. We got a good look at all the birds as they were feeding. The Red-footed Boobies and

Wedge-tailed Shearwaters landed on the water and the Captain maneuvered the boat to within a few yards of them, much to the delight of the photographers aboard.

When everyone had exposed enough frames, we headed northwest towards Barber's Point and then eastward along Ewa Beach back towards Kewalo Basin. We saw only a couple of Red-footed Boobies in that area. Although we were mainly interested in the birds, the mate could not resist trolling one line, and as we cruised along off Ewa Beach, a fish hit the lure. I had the honor of hauling in a nice Mahi Mahi.

Just before we turned back into Kewalo Basin, a White-tailed Tropicbird circled right over the boat for a nice climax to our trip. We were back at the dock shortly after 3:00 p.m.

Peter V. Donaldson

MANANA ISLAND

FIELD TRIPS

This year, we are planning four trips to Manana (or Rabbit) Island. This small island near Makapuu Beach can be reached only by swimming or wading ashore from a small boat. There is no fresh water and very little shade on the island. If you are not comfortable with the idea of riding in a small boat, making your way through the surf to a rocky beach or spending several hours in the hot sun, then these trips are not for you! For those who are willing to risk these hazards, Manana Island is an excellent place to get close-up looks at breeding seabirds. If you would like to observe seabirds but remain on solid ground, plan on going instead to Kaneohe Marine Corps Air Station on our May 8 trip. At Kaneohe, we should get a close look at the Red-footed Boobies nesting on Ulupau Head. We will also look across to Moku Manu with spotting scopes to observe the seabirds breeding there.

The following trips are tentatively planned to Manana Island:

DATE	ALTERNATE	LEADER	PHONE
14 May	21 May	Audrey Newman	732-7572
19 June	26 June	Maura Naughton	254-1896
16 July	23 July	Stewart Fefer	235-8290
21 August	28 August	R. Shallenberger	261-3741

The alternate dates are in case there is high surf. To prevent excessive disturbance

of the birds and in compliance with our State of Hawaii Sanctuary Entry Permit, only a limited number of people will be allowed on these trips--probably a maximum of 30 on each. Contact the leader of the trip you are interested in. Details will appear in later issues of 'Elepaio.

APRIL PROGRAM:

HAWAIIAN OFFSHORE ISLETS

The guest speaker for the Monday 18 April Hawaii Audubon general meeting will be Ronald Walker of the Hawaii State Div. of Forestry and Wildlife. He will show the film *The Birds of Manana Island*, and afterward discuss the topic of *Hawaiian Offshore Islets: Their Significance in the State Wildlife Management Plan*.

The meeting will be held as usual at the McCully-Moiliili Library on S. King St. at 7:30 p.m. If you have friends that are interested, bring them along! They are always welcome.

VOLUNTEERS NEEDED

---Volunteers are needed for Saturday and/or Sunday July 9 and 10 to help 2-3 other Hawaii Audubon members oversee the Audubon booth at the Waimea Arboretum Foundation Plant Sale and Exhibition. Volunteers will dispense information and sell publications. "Time-sharing" with others will provide the opportunity to visit the other activities at the plant sale. Call Leilani or Bob Pyle (262-4046).

---Another volunteer is needed to help with the monthly mailing of the 'Elepaio. Call George Campbell for more details (941-1356).

---Our Corresponding Secretary Thea Johanos is going to be gone doing field work for several months; a volunteer is needed to replace her during her absence. Call Thea (946-2181).

---A volunteer is needed to fill and mail occasional orders for back issues of 'Elepaio. Most back issues are kept at the Bishop Museum, but the extras of recent issues could be kept at home. Call Dick Smith (262-4784) or Bob Pyle (262-4046).

---Volunteers are always needed to assist with proofreading, typing, or writing for the 'Elepaio. A volunteer is especially needed to compile a five-year index from the yearly indices. Call Marie (533-7530).

APRIL FIELD TRIP:

MANANA TRAIL

The Sunday, 10 April field trip will be to Manana Trail on Oahu. The trail follows a ridge to the crest of the Koolaus. The lower portion of the trail is mainly exotics; there is the possibility of seeing Gray Swiftlets, if luck prevails. Farther up the trail, there are more native plants and birds.

The trail is poorly maintained and some parts are eroded. In some sections, it is steep, muddy and narrow with a drop-off on either side. Appropriate shoes and clothes are strongly encouraged.

Meet at 7:00 a.m. on Punchbowl St. next to the State Library. Bring binoculars, water, lunch, and a light jacket. Call the trip leader, Peter Donaldson (456-5662) for more information.

NEW ZEALAND FILM:

LAND OF THE KIWI

On 20 and 21 April, the Hawaii Geographic Society will be sponsoring a program entitled *New Zealand: Land of the Kiwi* with Fran William Hall.

The Wednesday 20 April showing is at 10:00 a.m. at the Arcadia Retirement Residence (no parking available). The Thursday 21 April showing is at 7:30 p.m. at the Mid-Pacific Institute Auditorium in Manoa.

Tickets will be available at the door and the admission price is \$3.25. If you plan to attend, cut out the coupon on page 87 of this issue of 'Elepaio and present it at the door; one dollar of your admission price will then be returned to the Hawaii Audubon Society as a donation.

CHANGE OF ADDRESS

Are you planning to move? If so, please let us know ahead of time, or as soon as you know your new address. Changes of address should be sent to: Susan Schenck, Hawaii Audubon Society, P.O. Box 22832, Honolulu, Hawaii 96822.

HELP WITH 'ELEPAIO

The May issue of 'Elepaio newsletter will be pasted-up on 20 April (Wed.) beginning at 6 p.m. Call Marie at 533-7530 for more information. No experience necessary!

THANK YOU

The Hawaii Audubon Society heartily thanks Robert J. Shallenberger for his recent donation. Rob signed over to the Society a \$1200 check from *Natural History* magazine, which was his payment for an article he wrote on the Hawaiian Monk Seal. The article, entitled *A Seal Slips Away*, appeared in the December 1982 issue. The money is earmarked, by Rob's request, "...for programs relating to the Northwestern Hawaiian Islands. Perhaps...for a future Wildlife Week focus in this area or...a more specific research or educational project relating to the monk seal..."

REPRINTS OF ARTICLES

Reprints of articles in the 'Elepaio are available to authors and others at the following rate if ordered before publication date: for 100 copies, \$10. per page of the article. For each additional 100 copies, add \$3 per page.

IF NOT A MEMBER, PLEASE JOIN US

JOINT MEMBERSHIP

(National and Hawaii Audubon Societies)

Individual.....	\$ 25.00
Family.....	32.00
Sustaining.....	50.00
Supporting.....	100.00
Contributing.....	250.00
Donor.....	500.00
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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.

LOCAL MEMBERSHIP

(Hawaii Audubon Society Only)

Regular.....	\$ 6.00
Junior (18 and under).....	3.00
Subscriber (non-Hawaii residents).....	6.00
Life.....	150.00
(payable in three equal annual installments)	

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

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'ELEPAIO

Editors.....Marie Morin, Peter Galloway
(Send articles to Marie Morin,
1415 Victoria St. #1515, Honolulu,
Hawaii 96822)

COUPON

PRESENT THIS AT THE DOOR FOR THE
FILM "NEW ZEALAND: LAND OF THE KIWI"
AND HAWAII AUDUBON SOCIETY WILL RE-
CEIVE \$1.00 OUT OF \$3.25 PRICE OF
ADMISSION. SEE PAGE 86 OF THE APRIL
ISSUE OF 'ELEPAIO.

CALENDAR OF EVENTS

- April 10 (Sun.) Field trip to Manana Tr. on Oahu. See page 86. Leader Peter Donaldson (456-5662).
- April 11 (Mon.) Board meeting at the home of Charlie Lamoureux, 3426 Oahu Ave., Honolulu, at 7 p.m. (988-2255).
- April 18 (Mon.) General meeting featuring *The Birds of Manana Island*. McCully-Moiliili Library on 2211 S. King St., Honolulu at 7:30 p.m.

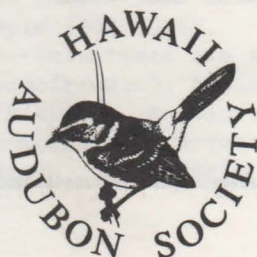
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