

THE RED-BILLED TROPICBIRD IN HAWAII, WITH NOTES ON INTERSPECIFIC BEHAVIOR OF TROPICBIRDS

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Two of the world's three tropicbird species are regular breeders in the Hawaiian Islands (Fig. 1), the Red-tailed Tropicbird (*Phaethon rubricauda*) and the White-tailed Tropicbird (*P. lepturus*). These graceful seabirds can be seen in many areas of the Hawaiian Islands, though the Red-tailed is more common in the Northwestern Hawaiian Islands and the White-tailed is more common in the main Hawaiian Islands (Harrison 1990). Both species are mostly white, but as their names suggest, one has long white tail streamers, and one has long red tail streamers. Adults of these species also can be distinguished by bill color, red in the Red-tailed and yellow in the White-tailed. The White-tailed also has larger black marks on the wings (Fig. 1; Pratt *et al.* 1987).

The world's third tropicbird species, the Red-billed Tropicbird (*P. aethereus*), visits the Hawaiian Islands on rare occasions. In the Pacific, this species nests on rocky islands in the Gulf of California and west of Mexico, south to the Galápagos Islands (Howell & Webb 1995, Spear & Ainley 2005a). It also nests in the Caribbean, the Cape Verde Islands and several islands in the South Atlantic, and in the northwestern Indian Ocean (del Hoyo *et al.* 1992). The Red-billed Tropicbird shares some characteristics with both Red-tailed and White-tailed Tropicbirds, but can be distinguished by the combination of white tail streamers, red bill, and dense black barring on the back and wings (Fig. 1). Juveniles of the other tropicbirds have black barring on the back, but lack the long tail streamers (Harrison 1987). This paper reports on recent observations of Red-billed Tropicbirds on O'ahu, summarizes information about previous occurrences of Red-billed Tropicbirds in the Hawaiian Islands, examines climatic data for patterns of occurrence, and describes interspecific behavior of tropicbirds.

On 3 March 2006 at 07:45, Michael Walther observed a Red-billed Tropicbird flying near a nesting colony of Red-tailed Tropicbirds near Hālonā Point on the southeastern coast of O'ahu. The bird landed in a small cavity in a rocky cliff and flew out about 10 min later. It was present again at 12:45 and was observed for the next 1.5 hours, visiting the same cavity several times, flying amongst Red-tailed Tropicbirds, and landing on a cliff ledge where a nesting Red-tailed Tropicbird was incubating. The Red-billed Tropicbird was present again on 4 March at 08:20 and 5 March from 15:00-16:30 when Eric VanderWerf and Lindsay Young visited the site. The bird was observed regularly in this area by many people during the remainder

of March, all of April, and much of May. It was seen more sporadically in May, though fewer observers were looking for it at that time, and it was last reported on 29 May.

On 8 January 2007, a Red-billed Tropicbird was seen again near Hālonā Point, O'ahu. It was seen sporadically during the remainder of January, but was not reported in February or March. On 2 and 3 April 2007, we saw a Red-billed Tropicbird again near Hālonā Point, sitting 50 cm away from an incubating Red-tailed Tropicbird. On 4 April 2007, we captured a Red-billed Tropicbird by hand as it rested in a small cave, and we placed a metal bird band on its left leg so it could be identified in the future. The right tail streamer of this bird was growing in and was about one-fourth the length of the left tail streamer. The bird we saw on 2 and 3 April 2007 had two full-length tail streamers, indicating it was a different bird. On 5 April 2007 the bird with two long tail streamers was present again, and on 9 April 2007 we saw two Red-billed Tropicbirds simultaneously. Both birds were flying with groups of Red-tailed Tropicbirds and attempting to court with them but

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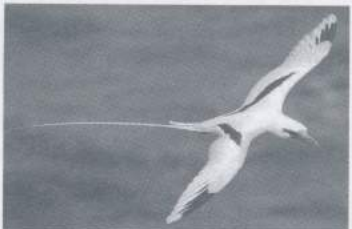
FIGURE 1.



Red-tailed Tropicbird



Red-billed Tropicbird



White-tailed Tropicbird

Photos by Eric VanderWerf.

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FIGURE 2. Red-billed Tropicbird (front) eliciting defensive behavior from an incubating Red-tailed Tropicbird. Photo by Eric VanderWerf.

were ignored. The two Red-billed Tropicbirds did not associate with each other and did not approach each other closer than about 30 m. On 10 April 2007 we captured the bird with two long tail streamers and banded it on the right leg so it could be distinguished from the other bird. The bird banded on the right leg was seen several times in late April and early May, and both birds were seen simultaneously again on 16 May 2007. On this occasion they called to each other several times and briefly flew parallel only a few meters apart.

On 26 February 2008, we saw a single Red-billed Tropicbird near Hālonā Point, for the third year in a row. As in previous years, the bird flew amongst the Red-tailed Tropicbirds and attempted to court with them, and landed briefly on a ledge near an incubating Red-tailed Tropicbird. The legs of the bird were not visible when it flew or sat, so we could not determine if it was one of same birds present in 2007, but it seems likely that it was.

The Red-billed Tropicbirds interacted frequently each year with Red-tailed Tropicbirds nesting in the area, and probably were attracted by their presence. In 2006 the Red-billed also briefly flew alongside single White-tailed Tropicbirds that occasionally flew past. The Red-billed Tropicbirds often attempted to participate in courtship displays with Red-tailed Tropicbirds by swooping past pairs or groups of displaying Red-taileds, but the Red-billeds did not perform the characteristic wheeling flight display of the Red-taileds and gave strident,

screeching calls that were very different from the clucking calls of the Red-taileds. Courting Red-taileds sometimes tolerated the presence of a Red-billed in their midst, but on several occasions pairs or groups of courting Red-taileds dispersed upon the arrival of a Red-billed. The Red-billed Tropicbirds sometimes landed on ledges and in small rock cavities less than one meter from nesting Red-tailed Tropicbirds and vocalized. It was not clear if the Red-billeds were acting aggressively and attempting to take over the nest site, attempting to court with the Red-tailed, or just curious, but the Red-taileds usually responded defensively by raising their wings and erecting their feathers (Fig. 2) and by giving harsh screams that were different from the clucking calls used during courtship displays and to greet mates. On one occasion in 2006 an incubating Red-tailed left its nest and egg after the Red-billed sat near it and vocalized for approximately 15 minutes. The Red-billed looked curiously at the unattended egg, but did not approach it and left immediately afterwards. The egg disappeared from this nest within two weeks, and eggs in two other nests visited repeatedly by the Red-billed also disappeared. In 2007, an egg was broken in the nest visited most often by Red-billeds, and each Red-billed sat in the nest cavity at different times after the nest failed. Tropicbirds are known to engage in serious fights during competition for nesting sites (del Hoyo *et al.* 1992, Schreiber & Schreiber 1993), and Diamond (1975) speculated that interference from White-tailed Tropicbirds may have been a cause of nest failure in Red-tailed Tropicbirds on Aldabra Atoll in the Indian Ocean. We did not observe any physical aggression between Red-billed and Red-tailed Tropicbirds, but it seems possible that some nest failures in 2006 and 2007 were caused by Red-billed Tropicbirds, through intentional damage, incidental damage from jostling during altercations or rapid departure by incubating birds, or overheating of eggs caused by lack of attendance.

There are 20 records of Red-billed Tropicbirds in the Hawaiian Islands in which the bird was either photographed or described in sufficient detail to allow conclusive identification (Table 1). All records are of adults, and all occurred in association with nesting Red-tailed Tropicbirds. This is a surprisingly large number of records considering how rarely the species has been observed at sea in the central Pacific. Red-billed Tropicbirds

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have been recorded up to 3000 km west of the Galápagos islands (117°W, 3°N; Spear *et al.* 2001), but during 1186 days of observation from 1980-1995, Spear & Ainley (2005a) did not observe any Red-billed Tropicbirds near the Hawaiian Islands, and all individuals observed were within 1684 km of the Galápagos Islands and the American continents.

Most records within the Hawaiian Islands are from Kīlauea Point, Kaua'i (7 records) and French Frigate Shoals (5 records), but those higher frequencies of occurrence may partly reflect the large numbers of skilled observers at the two locations. Several birds were observed for weeks or months at the same location, and were reported to spend considerable time near nesting Red-tailed Tropicbirds. On Tern Island in French Frigate Shoals, a bird, possibly the same individual, returned at roughly the same season (late January to February) each year from 1989-1992, though apparently no reports were received in 1990. The bird was banded in 1992 so it could be identified in future years, but it was not seen again. A similar pattern occurred at Kīlauea Point, where a bird was seen from February to mid-June in 1998-2000 and again in 2002, and on O'ahu, where one or two birds were observed from February-May in 2006-2008. The only records of two birds are from Johnston Atoll on 9 April 1957 (Moynihan 1957) and O'ahu in April and May 2007.

The bird on Johnston Atoll in 1969 was captured, banded, photographed, and measured, and was identified as *P. a. mesonauta* based on the measurements (Amerson & Shelton 1976). Two specimens have been collected, both females, on Nihoa in 1923 and on East Island, French Frigate Shoals in 1968. The bird from French Frigate Shoals also was identified as *P. a. mesonauta* (Clapp & Woodward 1968). No other individuals in Hawai'i have been identified to subspecies, but *mesonauta* is by far the most likely because it is the only one of the three subspecies known to occur regularly in the Pacific (del Hoyo *et al.* 1992).

Red-billed Tropicbirds disperse widely and may wander up to 1500 km from nesting areas (del Hoyo *et al.* 1992), but Hawai'i is over 4300 km from the nearest colonies off Mexico and is thought to be outside their usual range (Pitman 1986). However, their distribution and movements at sea may vary with fluctuations in oceanographic and climatic patterns (Ballance

et al. 2006). Spear & Ainley (2005b) found that tropicbird densities were significantly lower in the eastern Pacific during El Niño than during neutral and La Niña conditions, but also that the effect of El Niño conditions varied seasonally and among different current systems. The individuals that have visited Hawai'i may be true vagrants that are off-course, or they may represent the fringe of a somewhat atypical distribution that occurs when ocean conditions bring their preferred prey species closer to the Hawaiian Archipelago. Equal numbers of records have occurred in years with El Niño and La Niña conditions (Table 1), based on the Bivariate El Niño Southern Oscillation (ENSO) Time Series, which combines sea surface temperature data and Southern Oscillation Index pressure data (Smith & Sardeshmukh 2000). Although there is no clear association of Hawaiian records with ENSO patterns, other oceanographic patterns may be better indicators of conditions relevant to tropicbirds. Numerous Red-billed Tropicbirds were reported off California in the fall of 2005 (Dinsmore 2006), an influx that may have been associated with peculiar, non-ENSO oceanographic patterns in the eastern Pacific that also produced other unusual seabird records (Pyle 2006). Careful documentation of unusual seabirds, such as Red-billed Tropicbirds in Hawai'i, can help improve our understanding of seabird ecology and climatic conditions that affect their distribution.

The Red-tailed Tropicbird colony that the Red-billed Tropicbirds have visited is somewhat protected from human disturbance and predators such as feral cats, mongoose (*Herpestes auropunctatus*), and rats (*Rattus* spp.) by the steep terrain in this area and heavy traffic along Kalaniana'ole Highway. The best method of protecting this colony is to keep its location discrete. Birders and naturalists interested in viewing or photographing the Red-tailed Tropicbirds and searching for the Red-billed Tropicbird can do so safely from the Lāna'i Lookout or Hālonā Blowhole parking areas. Courting tropicbirds frequently fly along the shoreline and are easily seen from these lookouts during March-July. Courtship activity seems to peak during the middle of the day, from 10am to 2pm. Visitation to the colony itself on the cliffs below should be kept to a minimum because the presence of people at the nests could attract predators as well as vandals who might deliberately harm the birds.

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Hawaii Audubon Society Research Grant Available Applications Due October 1, 2008

Hawaii Audubon Society offers two grants per year for research in Hawaiian or Pacific natural history. Awards are oriented toward small-scale projects and generally do not exceed \$500. Grants are reviewed semiannually. Deadlines are April 1 for summer/fall grants and October 1 for winter/spring grants. Application guidelines are available at www.hawaiiaudubon.com under "chapter news" or by contacting the HAS office at (808) 528-1432 or hiaudsoc@pixi.com.

TABLE 1. Summary of Red-billed Tropicbird records in the Hawaiian Islands^a.

Year	Location	Observations	ENSO ^b	Reference
1923	Nihoa	15 Jun. Immature female collected by A. Wetmore, specimen USNM 300997.	0	Clapp & Woodward (1968), Clapp <i>et al.</i> (1977)
1957	Johnston Atoll	6-10 Apr. Second bird reported 9 Apr.	+	Moynihan (1957)
1968	East Is., FFS	15 Jun. Adult female collected, specimen USNM 544878	0	Amerson (1971)
1969	Johnston Atoll	11 Apr, 21 May, 7-28 Jun	+	Amerson & Shelton (1976)
1983	Kīlauea Pt., Kaua'i	6-7 Apr	++	Sightings Database
1989	Tern Is., FFS	23, 29 Jan	--	Sightings Database
1989	Kīlauea Pt., Kaua'i	6 May	-	Sightings Database
1990	Kīlauea Pt., Kaua'i	31 Jan	0	Sightings Database
1991	Tern Is., FFS	21 Feb	0	Sightings Database
1991	Hawai'i Is.	28 Mar	0	Sightings Database
1992	Tern Is., FFS	17-21 Feb	++	Sightings Database
1998	Kīlauea Pt., Kaua'i	26 Feb - mid May	++	Sightings Database
1999	Kīlauea Pt., Kaua'i	Mar-May	--	Sightings Database
1999-2000	Tern Is., FFS	30 Nov - 9 Jan	--	Sightings Database, Pyle (2001)
2000	Kīlauea Pt., Kaua'i	Feb - 18 Apr and mid June	--	Sightings Database
2002	Kīlauea Pt., Kaua'i	21 Mar	0	Sightings Database
2006	Hālonā Pt., O'ahu	3 Mar - 29 May	0	VanderWerf & Young (2007)
2007	Hālonā Pt., O'ahu	8 Jan - 16 May. 2 Birds observed on 9 Apr and 16 May.	0	VanderWerf & Young (2007)
2007	Nihoa	16-25 Mar	0	I. Jones, C. Rowland, C. Swenson, pers. comm.
2008	Hālonā Pt., O'ahu	26 Feb	?	This paper

^a Abbreviations: ENSO = El Niño Southern Oscillation; FFS = French Frigate Shoals; USNM = U. S. National Museum (of Natural History).

^b ENSO score based on the Bivariate ENSO Time Series index calculated by the NOAA Climate Diagnostics Center (Smith & Sardeshmukh 2000); + indicates a weak El Niño event ($0.5 < x < 1.0$), - indicates a weak La Niña event ($-1.0 < x < -0.5$), ++ and -- indicate strong events ($x > 1.0$ or $x < -1.0$, respectively), 0 indicates neutral conditions ($-0.5 < x < 0.5$).

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Hawaii Audubon Society 2008 Legislative Report

By George Massengale, J.D., Legislative Analyst

Aloha members,

There is an old weather proverb about the month of March that best describes this legislative session, *"In like a lion, out like a lamb."*

The Society was very active this year not only advocating for environmental and conservations measures at the Hawai'i State Capitol but on the local/county and federal levels as well.

This year on the state level, the Society reviewed, monitored, and testified on over four dozen bills and resolutions, ranging from Aquatic Resources, Coastal Zone Management (shoreline setbacks), Environment Impact Assessments, Feral Pig Control, Fishery Management, Invasive Species Eradication and Funding, Kawainui Marsh Restoration, and Monk Seal Recognition.

Highlighted below are the major bills that HAS offered testimony or comments on.

Aquatic Resources

HB3391 required the Department of Land and Natural Resources (DLNR) to assess and report the status of Hawai'i's marine ecosystems. HAS offered testimony in support. The bill passed the House but died in the Senate which elected not to have hearings on the bill.

HB2687 would have required DLNR to review its rules concerning laying gill nets and bottom fishing. HAS, along with other conservation groups, testified in opposition that the bill was unnecessary and was being supported by fishing groups that were unhappy with an earlier gill net fishing ban. The Society, along with others, managed to kill this bill in conference committee.

SB2483 would have established the Hawai'i aquatic stewardship act to study sustainability of our aquatic resources by creating a scientific advisory group and a native Hawaiian advisory group. The Society supported this measure, especially the provision creating the scientific advisory group. DLNR, concerned about effective management, opposed this bill. SB2482 was deferred in committee.

SB2871 was a very good bill, that if passed, would encourage DLNR to work with local communities to manage near shore reef resources through the Maka'i O Ke Kai Program and would have provided grants for community-based marine resource management. HAS offered strong support, however, after passing the Senate it was never heard in the House.

Coastal Zone Management

HB2378 was a very good bill that would have required various state agencies to account for sea-level rise, and minimize risks from coastal hazards such as erosion, storm inundation, hurricanes, and tsunamis. It would have also preserved public beach shoreline access. Finally, it would have extended shoreline setback to not less than 40 feet inland from the shoreline and require counties to account for annual erosion rates. The bill was never heard by committee despite efforts by HAS and

other groups to encourage public discussion.

SB2198 was another good bill that provides a tax credit to encourage the preservation and protection of conservation land in the state. HAS, along with other conservation groups, strongly supported this measure. The bill would offer landowners a conservation incentive tax credit while, at the same time, allow landowners to retain ownership. The bill passed the legislature, but was vetoed by Gov. Lingle, on July 8th. The governor believed that the bill's tax scope was limited and did not address "how competing and equally qualified submissions for the credit should be awarded, opening the program to potential litigation or challenge." Gov. Lingle's viewpoint is not without merit, as SB2198, did undergo several revisions as it worked its way through the legislature.

Environment Impact Assessments

HB2510 another good bill, would have provided monies to the University of Hawai'i Environmental Center to examine the effectiveness of the current environmental review system now in place. HAS was in strong support of this bill. After passing the House and crossing over to the Senate the bill died as a result of the Senate Ways and Means Committee's refusal to hear it.

Feral Pig Control

There were a number of bills and resolutions introduced to address the habitat destruction caused by feral pigs. The Society supported all these measures, however, none of the measures introduced managed to pass the legislature. **HB2121** would have directed DLNR to establish, implement, and maintain a pilot program to identify and reduce problem feral pig populations. The following resolutions, **HCR12 and HR12, SCR16 and SR10**, requested that DLNR prepare a plan to reduce the statewide feral pig population.

Fishery Management

SB3225 would have required DLNR to establish a network of fish replenishment for ornamental fish areas on Maui and O'ahu, with the option of establishing them on additional islands as warranted in the future. HAS supported this measure with some amendments to create an aquarium trade monitoring program. Like other legislation introduced this session, it passed one house and died in the other chamber for want of a hearing.

Invasive Species Eradication & Funding

HB2843 would impose an invasive species fee for all incoming non-containerized freight into the state. Until passage of HB2843, eradication funding for invasive species was funded through yearly legislative appropriation. HAS along with other conservation groups has supported the establishment of an ongoing funding stream which could be used to expand

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eradicating efforts to eliminate invasive species such as the coqui frog and the varroa mite which has made its way to Hawai'i and has infested O'ahu's bee colonies. HB2843 passed the legislature and was vetoed by Gov. Lingle. The governor felt that the fee of 50 cents for 1,000 lbs. of freight was excessive. The legislature voted on July 10, 2008 to override the governor's veto.

Kawainui Marsh Restoration

SB3206 was a problematic bill for HAS because of the Society's long involvement in the marsh's restoration. As introduced, the bill would have established a Kawainui Marsh advisory council. As written in the bill, the proposed advisory council did not fairly represent the many organizations that have contributed time, effort and funding to preserving the marsh over the last 30 years. In addition, it did not mandate that DNLR meet with the advisory council on a regular basis to review and assess the progress and programs pertaining to the marsh. HAS offered amendments to address this and other concerns at several different hearings. It was noted throughout that the Society "believes that efforts surrounding its rehabilitation should be well thought out and predicated on community participation and the involvement of those stake-holder organizations that have worked diligently over the years to protect the Marsh." SB3206 passed both the House and Senate but without resolution on the advisory council's makeup. To resolve this matter, the bill was referred to conference committee on August 14, 2008, however, the conference committee failed to meet, thus this measure died.

Monk Seal Recognition

HB2626 and **SB2464** were two "feel good" measures introduced to make the Hawaiian Monk Seal our state mammal.

The Society strongly supported this effort. SB2464 moved on to pass both the Senate and House and was signed into law by Lt. Governor Aiona on May 14, 2008.

Other Legislative Activities

In addition to maintaining a presence at the State Capitol, your Society was active at the federal level by offering testimony on a funding appropriation of \$8 million for the James Campbell National Wildlife Refuge on O'ahu's North Shore near Kahuku. The monies would be used to maintain the refuge's 1,100 acre habitat. In addition, part of the funding would be used to improve visitor viewing opportunities for threatened and endangered species including the Hawaiian monk seal and the green sea turtle.

On the county level, the Society supported The Nature Conservancy and The Trust for Public Land's effort to acquire the Honouliuli preserve from the City & County of Honolulu. As you all know, the Honouliuli preserve is a vital refuge for the endangered 'Elepaio and is critical in the ongoing recovery efforts to restore the 'Elepaio's viability.

On the Big Island of Hawai'i, the Society offered testimony on Bill 224 making all Hawai'i County outdoor parks, beaches, and recreation facilities smoke-free. HAS offered testimony on the impact cigarette butt litter including plastics have on our sea birds. Bill 224 had overwhelming County Council and Big Island citizen support. After being passed by the County Council on April 24th the Mayor vetoed the bill. However, the mayor's veto was easily overridden by the Council at a meeting in May.

Although you never get everything you want, especially from our state legislature, this past legislation session should be considered a successful one. I would once again like to say "Mahalo" to everyone who supported our Society's legislative agenda and the efforts of all the organizations working to make our 'aina better for all of us.

SAVE THE DATE!

Hawaii Audubon Society's

Annual Awards Dinner

Monday, October 20, 2008

6:00 pm to 9:00 pm

Treetops Restaurant, Paradise Park

(3737 Mānoa Road)

\$25 per person

Our guest speaker, Dr. Frank Bonnacorso will speak on the Hawaiian Hoary Bat and his research on Hawai'i Island. Please make your reservations by calling (808) 528-1432, emailing hiaudsoc@pixi.com, or by registering on our website, www.hawaii-audubon.com. Checks may be mailed to Hawaii Audubon Society, 850 Richards St. #505, Honolulu, HI 96813.

Hawaii Audubon Society Library

A Public Resource

A recent inventory of the books and publications in the Hawaii Audubon Society office in Honolulu revealed a treasure trove of material for research and general interest reading. There are 324 books to choose from including titles such as *To See Every Bird on Earth*, *Birds in Origami*, *Sex in Your Garden* and *The Complete Works of John James Audubon*. Although most of the hard-bound and paperback books and booklets are on subjects relating to birds and other wildlife, a recent donation from the Waimea Valley Audubon Center (National Audubon Society) includes subjects such as Plants, Hawaiian culture, Arts and Crafts, Environmental Education, and Astrology. Also available for browsing are numerous journals and newsletters from all over the U.S. and the world. For access to the material for onsite use, call the Hawaii Audubon Society at (808) 528-1432 for an appointment.

HAS Field Trips

Contact the HAS Office at:
(808) 528-1432, hiaudsoc@pixi.com

Saturday, August 30

Paikō Lagoon with Alice Roberts, 8:00 - 10:00 am

A lowtide meander with Alice to welcome our migrating shorebirds back to Hawai'i and explore many other fascinating creatures along the shoreline. A great family outing! Wear old tennis shoes or reefwalkers and bring binoculars, water, sunscreen, and a hat. Call Alice to register, 864-8122.

Sunday, September 7

Honolulu Zoo with Wendy Johnson, 9:00 - 11:30 am

Join HAS for a special tour of the Honolulu Zoo's bird exhibits led by Linda Santos, Curator of Birds. Visit the bird propagation facilities, see native birds and amazing varieties of Birds of Paradise and other exotics. Space is limited, call the HAS office to register.

Give Aloha

Foodland's Matching Gifts Program

During the month of September, you can make a donation to the Hawaii Audubon Society at any Foodland or Sack N Save checkout. Donate up to \$249 per person, per organization, and Foodland and the Western Union Foundation will match your donation. Mahalo!

HAS Program Meeting

Program Meetings are sponsored by HAS and the UH Biology Department, and are held at UH Mānoa's St. John lab building (Botany Building) in room 011 (ground floor auditorium). The address is 3190 Maile Way. Attendance is free and open to the public.

August 18, Monday, 6:30 - 8:30 p.m.

O'ahu's Offshore Islets with Jaap and Heather Eijzenga (bold) Jaap Eijzenga, Offshore Isle Biologist for the Offshore Islets Restoration Committee and Heather Eijzenga, Coordinator for the Bishop Museum's Hawai'i Offshore Project will speak on the offshore islets of O'ahu and their studies of the ecosystems and threats to the islands and the seabirds that nest there, such as invasive ant species.

Nominating Committee Seeks Candidates for Board of Directors

If you are a Hawaii Audubon Society member and would like to be a candidate for the Board of Directors, please submit a letter of interest and brief resume of your background and activities (in and/or outside of HAS) to the attention of the Nominating Committee at the HAS office by November 3. Contact the HAS office with questions.

Membership in Hawaii Audubon Society 2008

Regular Member:	\$ 25.00	Foreign Membership (Airmail)	
Student Member:	\$ 15.00	Mexico.....	\$ 26.00
Supporting Member:	\$100.00	Canada.....	\$ 28.00
		All other countries	\$ 33.00

These are annual membership dues, valid January 1 through December 31.

Donations are tax deductible and gratefully accepted.

Name _____

Address _____

City, State, Country, Zip _____

Phone _____ Email _____

Membership \$ _____ + Donation \$ _____ = Total \$ _____

New Membership Renewal

Please make checks payable to Hawaii Audubon Society and mail to us at 850 Richards St., #505, Honolulu, HI 96813.

PLEASE LET US KNOW IF YOUR ADDRESS CHANGES.



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Calendar of Events

- Monday, August 18**
 HAS Program Meeting *See page 49*
- Saturday, August 30**
 Paiko Lagoon with Alice Roberts *See page 49*
- Month of September**
 Foodland's "Give Aloha" Program *See page 49*
- Sunday, September 7**
 Honolulu Zoo with Wendy Johnson *See page 49*
- Wednesday, October 1**
 HAS Research Grant Applications Due *See page 45*
- Monday, October 20**
 HAS Annual Awards Dinner *See page 48*

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