

JULY 25-30 2010 N=71
SEPT. 21, 10
Nov. 8, 10
DEC 31-JAN 2
2011

mead.

COMPOSITION
MOLOKAI

OFFICIAL® 100 sheets • 200 pages
9¾ x 7½ in / 24.7 x 19.0 cm
wide ruled • 09918

MeadWestvaco Consumer & Office Products, Dayton, Ohio 45463 Made in Vietnam © 2007 MeadWestvaco Corporation

808-395-6409
GEORGE BALAZS



Migrant C2 5/21/10 8:13pm - Dave 174
 (570.9 ft record)

mead®

From Rice & Balazs
 MAX 144 M (472 ft)

SQUARE
 DEAL



SCHEDULE
 HORAIRE / HORARIO

	1	2	3	4	5	6	7	8
TIME HEURE HORA								
MONDAY LUNDI LUNES		CONDO'S Molokai Shores Unit A309: \$235,000(FS) Extra features in unit. 1 bedroom/1 bath with loft. Ke Nani Kai: \$405,000(fs) Unit 117 2 bedroom/2 bath fully renovated corner lot. Wavecrest: \$225,000(fs) Unit C-312 1/bedroom-1/bath newly remodeled with many updates. Very clean, includes furniture and many extras.						
TUESDAY MARDI MARTES								
WEDNESDAY MERCREDI MIERCOLES		HALAWA - Pū O Hoku Ranch LAVINIA CURRIER NOVEMBER 8, 2010 GB and JOY BREWING P. 122						
THURSDAY JEUDI JUEVES								
FRIDAY VENDREDI VIERNES								
SATURDAY SAMEDI SÁBADO								
SUNDAY DIMANCHE DOMINGO		Attn: Mac Poepoe Hui Malama o Moomomi PO Box 173 Kualapuu, HI 96757						

LAST TRIP PALAAU way 2007 (3 years ago)

PalaaU, MOLOKAI 71 TURTLES

JULY 25-30, 2010 35.3-88.2 cm
Sunday PM Friday PM

DATA PAGES-21-33; 71-111
KAWAALO A Beach 2010 p. 189

SEGUNDO 21.09401 N 157.1001 W
(from Google Earth)
7/28/10 sediment + water sample

MOLOKAI TURTLE TRACKERS - EXCAVATION 7/29 AM
Hatchling Tracks Seen ~ 7/26/10 AM I live hatchling.
69 shells.
3 frozen eggs picked up from LH 7/30/10.

PLACE 2" out from House to east slightly =
21.08974 N
157.09710 W
5 days on the water (4 pickup days)

ED & DIANE MEDEIROS P.O. BOX 1216
FRIENDLY ISLE FISHING
KAWNAKAKAI, HI 96748-1216

Sept. 21, 2010 p. 112 ED, DIANE, JOYCE, DANIEL
TUESDAY KAWAALO A Beach + LUNCH + PLATES + HALAUA

(1)



Molokai Bugee
Award Ceremony 30 years
Sept. 21, 2010

Notes:

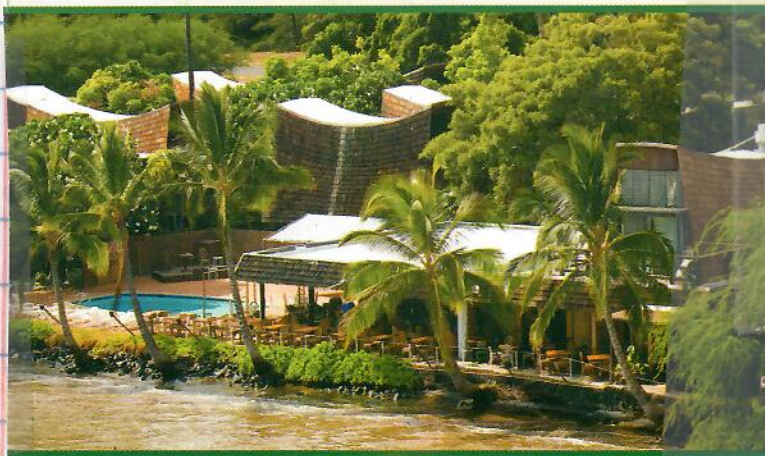
002258

08/01/2010



4

hotel molo kai



The Last Authentic
Hawaiian Experience



Date: Mon, 9 Aug 2010 08:53:40 -1000
From: Diane Medeiros <diane@moloikacommunityfcu.com>
To: 'George H. Balazs' <gbalazs@honlab.nmfs.hawaii.edu>
Subject: RE: From George

Hi George -

Dart is short for Dartagnon - spelling is correct, Julie is short for Julie Ann, Ed is short for Edwin, but you're right, he'd rather be Ed or Eddie (usually Eddie is for more informal situations).....

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6

ARRIVE

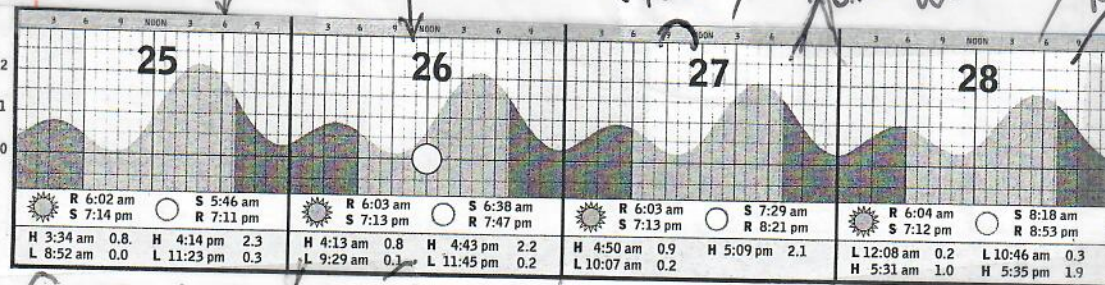
"NetSet Segundo's SPOT"

SEGUNDO DAY 1 PICKUP TUESDAY

checked KAPUKAUA BEACH

next check DAY 2 SEGUNDO 2 WEDNESDAY

next check KAPUKAUA



SUNDAY

Monday

N=18 (1 TMP, 18 new)

Segundo + 01 smooth Scales SKIN growth

N=18 TOTAL

N=18 + 1 BOAT DIVE

Segundo

N=19 TOTAL

2 TAG Recoveries (neither w/tumors)

Sediment and water samples collected for PCR

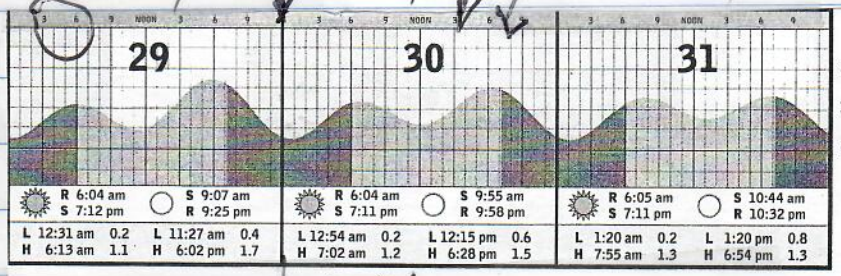
TNC
Molokai
TURTLE
TRACKERS
NEST
EXCAVATION

"Pickup Day 3"
"PLACE 2"
East of Palau Harbor
Thursday Nest
Friday
"Pickup Day 4"
"PLACE 3"
MORE EAST
Friday
Saturday

Likely good
Nest
Kauai Harbor
Didn't
go this
night

DRIVE
TO HAWAII
C1 Nest 1-2 months old

Depart
Island AIR 7:45 PM



N=17
+ 3 BOAT =
DIVER
TOTAL

N=14
2 TAG Recoveries (1 w/TMRS)
3 TMRS (all 3 TS1)

one tag
Recovery
w/TMRS

2 TMRS (TS2 TS1)
+ (1 smooth scaled growth)
N=20 TOTAL

4 Pickup
Days TOTAL =
71

SUBTOTAL - 57 turtles
TMR 5.3%

5 TAG Recoveries =
7%

Revised
70 captured
6 w/tumors
8.6

TOTAL
21900
TAGGED

6 w/TUMORS (1-TS3,
1-TS2, 4-TS1)

8.45%
SCL =
35.3 - 88.2 cm

21

Date: Fri, 23 Jul 2010 17:57:02 -1000
From: Bill Puleloa <billp@wave.hicv.net>
To: George H. Balazs <gbalazs@honlab.nmfs.hawaii.edu>
Subject: Re: From Keoki-- Darn!

Keoki,

^{DOC APÉ}
Kief Apo is the senior officer (Damn the dinosaur I've become! I remember this boy playing in the Little League when I was involved). By coincidence, I ran into Wes Purdy this morning and informed him of your impending plans on Molokai. Regarding Maui...my great grandfather left behind two parcels of land in Kula. These kuleana lands are now being "quiet title" by a developer. It's a legal mess, and only adds to the our personal burden what with our daughter and all. In life one door opens and another closes, but I suppose that is nature's way. By default, I'll leave the turtle hugging to you and Mark. Good luck and here's wishing you safe passage.
Bill

7/25/2010 Sunday
91

Date: Wed, 21 Jul 2010 13:35:25 -1000
From: Shandell Brunson <Shandell.Brunson@noaa.gov>
To: 'George H. Balazs' <gbalazs@honlab.nmfs.hawaii.edu>
Subject: DOCARE Molokai

-->

Tel: (808) 553-5190 ✓

Fax: (808) 553-3951 ✓



SET Net

7/26, 7/27 & 7/28/2010

Peter Palad ^{photos}
 Po Box 1268 ^{sent 8/2/10}
 Wailuku, HI 96793

SON =
 SOLOMON
 DAUGHTER = "ALIA" (not correct spelling)

7/25/2010 Sunday

Depart ISLAND AIR 545pm Full Flight

ARRIVE ~ 605pm

ALAMO Car Rental (the only agency at the airport), National Car Rental is at the Hotel Molokai

Checked in Hotel Molokai 7AM ("Aqua")

Room 111 M. Rice Room 110

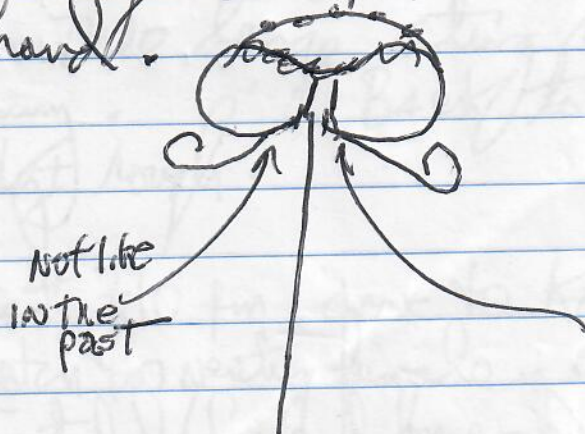
Hot and Sweaty! fan only. substandard room

Fish stir fry

Dinner at Hotel Molokai. Saw ED, DIANE, Rene, 3 children w/ kete, Ken w/ wife from Philippines having dinner.

7/26/10 up 530am - Breakfast at Monday Bakery. TO Wharf at ~ 7:15am near Net Boat and Rodden 220hp Suzuki nice yellow paint.

TO Palau ~ 830am - to house then to Segundo spot - Set mostly by hand.



not like in the past

shore

Many floats used.

"KAILA" Rene's youngest = TITIANA
6 years old?
JOEY & KEKO A-SON

7/26/10 Back to shore ~ 2 pm.
Monday Got Moomomi ^{GATE} key from Lil Mac MacMillan,
at 4.1 miles
Bought groceries.

Dinner at Hotel Molokai - EGG PLANT PASTA.

7/26 Bed ~ 10 pm

7/27 Breakfast at RUBY'S #7 + 3 coffee
Tuesday Day 1 pickup (BAKERY CLOSED) FULL MOON
7:08 pm
Sunset

Dante and children/grand grandchildren in
his boat - "Baby Fish" (catamaran) Ed says
his GPS show 11,000 miles on it.

Depart dock ~ 7:30 pm - calm - fast
Smooth trip to house then to net boat
to net. Hand captured 18 turtles from
net. Two large sting rays in net
Swimming. Back to dock ~ 1:30 pm
windy rough.

KAWAALO

Sunset 7:10 pm drove to KAWAALO
to watch for nesting female. one basket being
interstitial (found by rock) - went back quickly
into the water. Saw tracks &
Digs from earlier days/weeks. ^{mainly first} 1/3 of beach

7/28/10
Wednesday

Breakfast at bakery

Day 2 pick up Segundo:
Water (1) and Sediment (1) samples
collected. MRC and I went to

"Place 2"

House - worked up 18+1=19
turtles and released. Ed/DIANE
others moved net across channel
to the east out and to east of House
(considerable distance out).

Back at 3 pm.

Bought food and ate in car at
Agua de la then walked beach -
nothing seen except bright spots
of bioluminescence (+ ghost crabs) by
Rock at west end.

~~Need photo~~

Photos sent 8/2/10

Joey & Renee Medeiros
Po Box 2112
Wailuku HI 96793
reneemedeiros@clearwire.net

Address

XINA BICOY ~ 14

AiLA's younger sister
Aila at Notre Dame university

Need ① Bill POLELOA story

Phone # 811/110

- ② Joe KITAGAWA nesting Papohaku?
- ③ WaveCrest rent
- ⑤ DART - Access to WAIKANE
- ⑥ MARC DATA Set diving (to test computer skill)
- ⑦ MAC Poipoi
- ⑧ Peace Corps (Mile marker?)
- ⑨ UTpress Molokai Map w/ Honu
- ⑩ T-shirt to DART
- X ⑪ PLACE #1 (GPS)

7/29/10 Breakfast at bakery,
Thursday A.M.

Depart ~ 7:30am - one and
only pickup day at "Place 2" worked
up turtles then moved net far more to
the east and closer to shore.
deeper though.

By the time the net was set
~ 4pm return to dock. Motor of
w/Ed Diane + Motion (16) inside
reef back to pier (USCG cutter
tied up). (Anchored at canoe landing)
Dinner at Hotel Molokai (Ribs & shrimp)
Good live music • To Bed early.

7/30/10 Breakfast at Bakery. "

Friday Departed in Dart's Boat Baby
Fish" ~ 8:30am through gap in reef
to net. Worked up turtles
then pulled net. Didn't go to house
(Larry Paulins helped pull net). Back
to pier in Dart's boat. Arrive
~ 12:30pm. Took MASC to airport (departed 3pm)
Then I drove to HAWAII VALLEY (at home)
WALKER Right HAND Beach - took photos.

(18)

POST NOTE: ONE OF DART'S Grandsons
~ 4 years old asked "Why are you letting them (the
turtles) go?" Why would we keep them?
Answer "to eat them!"

SAW Rosy husband HARVEY - 3 children
ONE child NAMED ENZO

MoLoKaI
Burger BBQ STAK Sandwich
Drive Through

7/30/10 only.
FRiday (photo) one site seen that may be a good nest
before Messerschmidt tree end.

No ^{other} signs of soil disturbance.
3 women, one beach + 1 man at point.

2 were fishing.

Photo of beach across the river -

10-12 camp sites visible. Tire tracks on
beach closest to the river.

Returned to LiLi's house to return keys
and pick up ^{from excavated nest} excavated eggs.

Biked car and to airport. 630pm flight
delayed until 930pm - took 745pm flight
Island Air.

Arrived Honolulu ~ 815pm.

DAY 1 SEGUNDO (21)
Pickup 7/27/2010 Tuesday

GPS = 21.0940° N
157.1001 W

Segundo
#1
SCL = 69.1 / Notch 68.9
CCL = 76
SW =

①
TS = 3

Tumored: LFL - 1#3
Neck 2#3
Good body Cond. Eye 1#2
Eye 2#1
Gloths = 1#2
L/R Jaw fins / #2
RFL = 1#3, 1#1

LH 46024D7922

RH 4607312423

② #2 SCH = 63.4 Notch 63.1
SW = 49.4

4607537F64

CCL = 69.0
SW 58.5

LH
RH 4607685A01

Tags:

LH flipper: Femur Broken
separated & healed - Totally
useless

7/27/10 Day I

(3)

#3 SCL = 60.5 notch 60.3
SW = 47.9
CCL = 66.5 CW = 58.0

Tags.

4602224250

LH



46074A6B2F

RH



(4)

#4 SCL = 80.3 SW = 63.0 notch = 80.3
CCL = 87.5 CW = 81.0

TS ⊕ (

Left shoulder 1#2 ^{size growth} Normal skin
on surface of tumor

Healed injury - RH / claw missing



46077C3D16

LH

460802265A

RH



4607498912

4607580070

7/27/10 DAY 1

(5) SCL 63.6 SW 46.9 NOTCL ^{63.5}
CCL=69.0 CW=~~57~~

(5)

Left shoulder Gray patch tissue:
Tumor Regression? Tag:

LH

4608150373



RH

46021B760F



(6) #6

SCL=61.5 SW=46.8 NOT=61.2
CCL=66.5 CW=57

(6)

Tags:

LH

46076C4C5D



RH

4602031826



(7)

(7) #7

SCL=~~84.0~~^{76.7} SW=58.7 NOT=^{76.6}
CCL=84.0 CW=75

Tags:

LH

4607490912



RH

4607580D70



7/27/10 Day I

(8)

#8 SCL=64.8 SW=49.1

Notch=64.4

CCL=70.0 CW=61.0

Tags:

LH



4608055415

RH



46072C7F56

(9)

#9 SCL=57.6 SW 43.8 Not 57.4

CCL=62.0 CW=54.0

Tags:

LH



4608132535

RH



4607756E45

(10)

#10 SCL=49.6 SW=37.8

Notch=49.6

CCL=54.0 CW=47.0

Tags:

LH ~ 3/4 Missing & healed

LH



4607711863

RH



460777104E

7/27/10 Day 1

(#11) SCL=57.7 ~~SW=~~
Notch=57.6
CCL=63.0 CW=57.5

Tag

LH



4607730F77

RH



4607724817

(#12) SCL=50.4 SW=40.5
Notch=50.3
CCL=54.0 CW=48.5

Tags

LH

460813284A



RH

4608073408



1103 hours

(#13) SCL=62.5 SW=50.5
Notch=62.4
CCL=69.0 CW=62.0

Tag

4607247169

LH



RH

4607614743



LFL 1/4 missing, healed

Claw missing - healed

7/27/10 Day I

(#14)

SCL = 59.7 SW = 47.9

Notch = 59.3

CCL = 65.0 CW = 58.0

LH

4602072011



RH

4607355326



RH 50% missing & healed

(#15)

SCL = 63.7 SW = 51.5

Notch = 63.7

CCL = 70.0 CW = 63.0

Tags:

LH

46022B6F6F



RH

4607186B45



(1131 h.)

(#16)

SCL = 48.9 SW = 37.9

Notch = 48.9

CCL = 53.5 CW = 44.5

4-5 - Marginal Rt.

Slight indentation -

Tag

LH

4603661C36



RH

4607732C63



7/27/10 DAY I

END (33)
DAY I

#17 SCL=59.5 SW 43.8
Notch=59.3
CCL=65.0 CW=55.5

Tags: LH 46073A6769


RH 46017F527F


#18 SCL=41.7 Notch=41.5
SW=32.9
CCL=45.5 CW=38.5

Tags: LH 4607543029


RH 460228221A


Finished at
1148h.

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Persistent Infectivity of a Disease-Associated Herpesvirus in Green Turtles after Exposure to Seawater

Sadie S. Curry,¹ Daniel R. Brown,² Jack M. Gaskin,² Elliott R. Jacobson,³ Llewellyn M. Ehrhart,⁴ Silvia Blahak,⁵ Lawrence H. Herbst,⁶ and Paul A. Klein^{7,8} ¹ Interdisciplinary Program in Biomedical Sciences, College of Medicine, University of Florida, Gainesville, Florida 32611, USA; ² Department of Pathobiology, College of Veterinary Medicine, University of Florida, Gainesville, Florida 32611, USA; ³ Department of Small Animal Clinical Sciences, College of Veterinary Medicine, University of Florida, Gainesville, Florida 32611, USA; ⁴ Department of Biology, University of Central Florida, Orlando, Florida 32816, USA; ⁵ Staatliches Veterinaruntersuchungsamt, Detmold 32758 Germany; ⁶ The Institute for Animal Studies, Albert Einstein College of Medicine, Bronx, New York 10461, USA; ⁷ Department of Pathology, Immunology, and Laboratory Medicine, College of Medicine, University of Florida, Gainesville, Florida 32611, USA; ⁸ Corresponding author (paklein@ufl.edu) Present address: Department of Pathology, Immunology, and Laboratory Medicine, Box 100275, University of Florida, Gainesville, Florida 32611-0275 USA.

ABSTRACT: Herpesviruses are associated with several diseases of marine turtles including lung-eye-trachea disease (LETD) and gray patch disease (GPD) of green turtles (*Chelonia mydas*) and fibropapillomatosis (FP) of green, loggerhead (*Caretta caretta*), and olive ridley turtles (*Lepidochelys olivacea*). The stability of chelonian herpesviruses in the marine environment, which may influence transmission, has not been previously studied. In these experiments, LETD-associated herpesvirus (LETV) was used as a model chelonian herpesvirus to test viral infectivity after exposure to seawater. The LETV virus preparations grown in terrapene heart (TH-1) cells were dialyzed for 24 to 120 hr against aerated artificial or natural seawater or Hank's balanced salt solution (HBBS). Fresh TH-1 cells were inoculated with dialyzed LETV, and on day 10 post-infection cells were scored for cytopathic effect. Virus samples dialyzed up to 120 hr were positive for the herpesvirus DNA polymerase gene by polymerase chain reaction. Electron microscopy revealed intact LETV nucleocapsids after exposure of LETV to artificial seawater or HBBS for 24 hr at 23 C. LETV preparations remained infectious as long as 120 hr in natural and artificial seawater at 23 C. Similar results were obtained with a second culturable chelonian herpesvirus, HV2245. LETV infectivity could not be detected after 48 hr exposure to artificial seawater at 30 C. Since LETV and HV2245 remain infectious for extended periods of time in the marine environment, it is possible that FP-associated and GPD-associated herpesviruses also may be stable. These findings are significant both for researchers studying the epidemiological association of herpesviruses with diseases of marine turtles and for individuals who handle turtles in marine turtle conservation efforts.

Key words: Green turtle, *Chelonia mydas*, herpesvirus, infectivity, seawater, disease.

Herpesviruses have been associated

with several diseases of chelonians (tortoises and turtles). Tortoise herpesviruses cause conjunctivitis, stomatitis, tracheitis, and pneumonia in Hermann's (*Testudo hermanni*), spur-thighed (*Testudo graeca*), and Central Asian tortoises (*Testudo horsfieldii*) (Biermann and Blahak, 1994; Kabish and Frost, 1994; Marschang et al., 1997). A herpesvirus also has been identified in green turtles (*Chelonia mydas*) with experimentally induced fibropapillomatosis (FP), and has been associated with naturally occurring FP in green, loggerhead (*Caretta caretta*), and olive ridley (*Lepidochelys olivacea*) turtles (Jacobson et al., 1991; Herbst et al., 1998; Quackenbush et al., 1998; Lackovich et al., 1999). FP has been transmitted by scratch inoculation with cell free tumor filtrates (Herbst et al., 1995a). In addition, herpesviruses have been associated with two diseases of mariculture-reared green turtles, gray patch disease (GPD), a necrotizing dermatitis of post-hatching green turtles (Rebel et al., 1975) and lung-eye-trachea disease (LETD), characterized by conjunctivitis, pharyngitis, tracheitis and pneumonia (Jacobson et al., 1986). GPD has been transmitted by scratch inoculation of naïve sea turtles with bacteria-free preparations derived from GPD lesions (Rebel et al., 1975). Many herpesviruses have been successfully cultured from tortoises. However, despite numerous attempts to cultivate GPD-associated and FP-associated herpesviruses, the LETD-

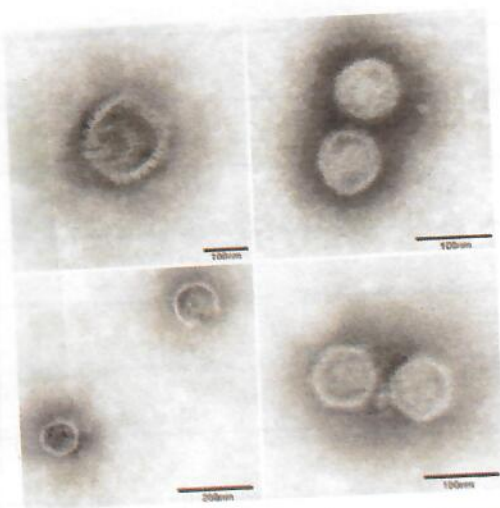


FIGURE 1. Negative stain electron microscopy images of lung-eye-trachea virus (LETV) after 24-hr exposure to artificial seawater or Hank's balanced salt solution (HBSS) at 23 C. The top left and right panels illustrate herpesvirus virions after exposure to HBSS. The icosahedral nucleocapsid structure is clearly visible and is approximately 100 nm in diameter. The bottom left and right panel illustrates herpesvirus virions after exposure to artificial seawater.

titered for infectivity. Although the viral envelopes were not clearly visible, four independent experiments demonstrated that LETV preparations remained infectious after a 48 hr exposure to artificial seawater or HBSS at 23 C (Fig. 2). The virus preparations used in each experiment had slightly different initial titers (four-six $\log_{10}\text{TCID}_{50}/\text{ml}$), but the titer consistently decreased approximately one $\log_{10}\text{TCID}_{50}/\text{ml}$ (10%) after 48 hr dialysis. Similar results were obtained for HV2245. In one experiment LETV exposed to natural seawater for up to 120 hr at 23 C remained infectious with a three $\log_{10}\text{TCID}_{50}/\text{ml}$ (50%) decrease in titer. In a separate experiment, LETV infectivity was reduced approximately one $\log_{10}\text{TCID}_{50}/\text{ml}$ after 96 hr when dialyzed against artificial seawater or HBSS at 15 C, and was reduced two $\log_{10}\text{TCID}_{50}/\text{ml}$ after 96 hr at 23 C, but all infectivity (>four $\log_{10}\text{TCID}_{50}/\text{ml}$) was lost after 48 hr at 30 C.

Many factors contribute to the spread of

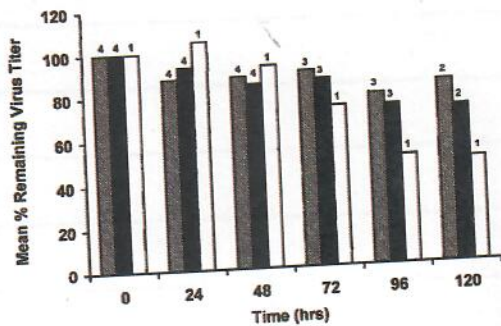


FIGURE 2. Persistent infectivity of lung-eye-trachea virus (LETV) after dialysis for 120 hr at 23 C. Mean % remaining virus titer of LETV exposed to artificial seawater (■), to Hank's balanced salt solution (HBSS) (▒), and natural seawater from Sebastian Inlet (□) are shown. Numbers above each bar are equal to number of replicates.

infectious diseases in animal populations. Stability of a pathogen outside the host is a critical factor in the epidemiology of a disease. The ability of a pathogen to remain infectious in the environment of its host may facilitate disease transmission. These experiments provide the first evidence that disease-associated marine herpesviruses retain their infectivity for extended periods of time outside the host in a marine environment.

These experiments utilized both artificial and natural seawater and virus infected cell lysates that simulated virally infected cells shed or sloughed from a diseased marine turtle into marine habitats. Consistent results obtained in four independent dialysis-exposure experiments supported the conclusion that LETV infectivity persists after exposure to seawater. Additionally, the tortoise herpesvirus HV2245 had similar stability following exposure to seawater, suggesting that other chelonian herpesviruses such as FP-associated and GPD-associated herpesviruses may share attributes necessary for survival under harsh environmental conditions.

It is likely that the extent of herpesvirus persistence in a natural marine environment will depend upon numerous other environmental factors. The composition of

seawater is in a constant state of flux and virus stability will likely be influenced by changes in temperature, currents, depth, sunlight, and pH. Organic material, especially protein, or cellular debris may stabilize viruses and increase survival (Lipson and Stotzky, 1984). Suspended sediments, such as clay, may also have a similar effect of stabilizing infectious virus (Clark et al., 1998). In addition to the physical and chemical components, the biological composition of a specific site can negatively or positively influence virus survival. Microbes producing antiviral substances have been documented in marine habitats and have been reported to decrease the amount of time infectious virus persists in the environment (Girones et al., 1989). The presence of a higher level of such microbes at one location versus the absence or lower level at another location may account for differences in virus survivability and disease transmissibility.

Because the temperature of seawater in marine turtle habitats fluctuates throughout the year, virus preparations were dialyzed against artificial seawater at temperatures ranging from 15 C to 30 C (Herbst et al., 1995a). LETV lost infectivity after 48 hr exposure to artificial seawater at 30 C, suggesting that at higher temperatures herpesviruses shed into seawater may be inactivated more rapidly. This study simulates the persistence of free virus shed into seawater. It is likely that temperature will affect the persistence properties of herpesviruses within infected lesions differently. In addition, this study does not address the effect temperature may have on the disease process. For instance, lesions in green turtles infected with GPD-associated herpesvirus had faster onset, development, and increased severity at 30 C (Haines and Klesse, 1977). In contrast, green turtles inoculated with filtrates containing FP-associated virus developed tumors during the winter months (low 15 C) and continued to develop as the water temperature increased (high 30 C) (Herbst et al., 1995a). It is difficult to

speculate on the true effect of water temperature on virus transmissibility especially since sea turtles traverse numerous marine habitats of varying water temperatures during their life history.

The ability of LETV to retain infectivity in a marine environment is not surprising since herpesviruses are known to be quite stable. Human herpesvirus 1 can persist for eight weeks at ambient humidity and temperature (Mahl and Sadler, 1975). The swine herpesvirus, pseudorabies, remained infectious for at least seven days on fomites such as whole corn, polypropylene, loam soil, and vinyl rubber (Schoenbaum et al., 1991). Marine herpesviruses may also be able to survive out of water for extended periods of time on surfaces of equipment, instruments, boats, or in facilities that contact sea turtles infected with herpesviruses.

The stability of other viruses in marine habitats has been previously assessed (Lo et al., 1976; Fujioka et al., 1980). Most of the research has focused on the potential contamination of marine and estuarine habitats with human enteric viruses as a result of wastewater release. If enteroviruses can survive in marine habitats, coastal waters used for recreation and harvest of shellfish may serve as a reservoir and thus become a public health hazard (Fujioka et al., 1980). Human enteric viruses including hepatitis A virus, poliovirus, echovirus, and rotavirus not only persist after exposure to seawater but have also been documented to be taken up by certain aquatic organisms (Goyal et al., 1979; LaBelle et al., 1980; Hejkal and Gerba, 1981).

Transmission of mammalian herpesviruses is usually by contact of infected cells in saliva, urogenital excretions, or free virus in aerosols (Fields et al., 1996). At this time little is known about the mechanism of transmission of herpesvirus infections in marine environments. Herpesviruses from infected turtles may be transmitted to uninfected individuals by direct contact between turtles, by vectors, by contact with

(64)

virus in sediments or suspended in seawater. The data of the present study are evidence that chelonian disease-associated herpesviruses may retain their infectivity for extended periods of time in the marine environment. As a result, common foraging grounds which potentially attract a high density of susceptible hosts may serve as a reservoir for infectious viruses and may facilitate transmission (Herbst and Klein, 1995b).

The results of this study are significant for both researchers studying diseases of marine turtles and various aspects of marine turtle conservation. Caution should be taken when handling marine turtles. Instruments, tools, hands, and work surfaces that have been in contact with turtles that could harbor herpesviruses should be cleaned to minimize risk of transmission. Ongoing attempts are being made to cultivate FP-associated herpesvirus and GPD-associated herpesvirus to assess their ability to maintain infectivity after exposure to seawater.

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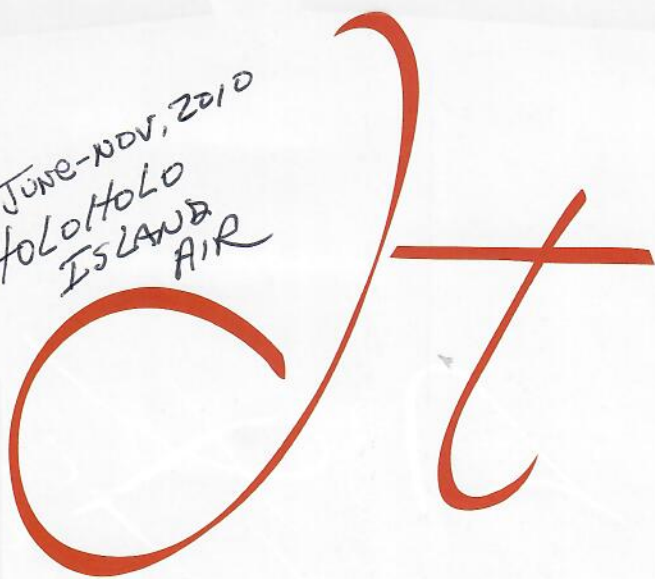
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65

JUNE-NOV, 2010
HOLOHOLO
ISLAND AIR



WAS SAID THAT, OF ALL THE HAWAIIAN ISLANDS, quiet, unassuming Moloka'i was the one that King Kamehameha V loved the best. Every month or two, Kamehameha and his court retainers would leave Honolulu Harbor on a visiting ship or aboard his schooner, *Kamaile*, and cross Ka'iwi Channel to Kaunakakai. Sometimes he went to Moloka'i to take care of personal business. On other occasions, he went expressly to relax and enjoy amenities that only Moloka'i could offer. More often than not, he combined work with play, looking forward to each escape from the bustle of O'ahu and to a gentler, more rural way of life.

Kamehameha V, or Lot Kapu'iwa, possessed an entrepreneurial spirit that seeded great plans for the unpretentious island. He envisioned fields of sugar cane growing on the fertile upland plain at Kualapu'u. He introduced longhorn cattle for hides and tallow, and deer for skins and meat. Because of his chiefly rank and privilege, cattle on the lowlands and deer in the uplands were placed under a *kapu*, or taboo, so they would not be harmed while they firmly established their numbers. The animals were free to roam the island, so stone walls were constructed to keep them out of the banana and sweet potato gardens of the farmers. Fragments of these walls can still be found today in the valleys of Kawela and Kamalo.

At Kawela, Kamehameha developed the area's ancient salt works, which produced quality sea salt for use by chiefs and commoners as well as the island's fishermen, whose nets teemed with huge schools of tender fish in season. These efforts kept the people of Moloka'i very busy, and they prospered immensely under his direct guidance and support.

No other location on the island could match Kaunakakai for resort and relaxation. Historically, the place name Kaunakakai ("resting on the beach") referred to canoes that sailed through the reef to fish and pull ashore here. Canoes and commoners both, however, kept their distance from the white-sand beach at Kaunakakai, reserved only for the chiefs. Royalty came here to bask in the warm sun and enjoy the bounty of fresh ocean delicacies and tasty *taro* that came from Moloka'i's east side. They took refreshing dips in the cool spring-water pond

and engaged in playful competitions of lawn bowling at several courses nearby.

Not far from today's Kaunakakai Wharf there once stood a raised area called Kalaeokamanu, named after the golden plover birds that returned every year from breeding grounds in the cold north to fatten in tropical climes. It was at this particular site that Kamehameha V established his personal retreat, Mālama.

On 3 oceanfront acres, the king constructed a thatched house of two spacious rooms carpeted in native style with fragrant woven mats. It was completely surrounded by a porch, which invited the sea spray carried onshore by intermittent breezes. An avid reader who passionately encouraged literacy among his people, Kamehameha also included a well-furnished parlor lined with glass bookcases, each brimming with

publications in the English language. Another marvel of the beautiful home was the faucet that piped fresh water into the house from springs on the grounds. Coconut trees were planted all around Mālama to provide shade from Kaunakakai's hot summer sun. The property also included five additional houses for his guests and retainers, as well as for storage. Most were thatched with sweet native grasses, and one or two were made of wood.

Neither Mālama nor the coconut trees surrounding it have survived the 140 years that have passed since Kamehameha V's death. But the Kapuaiwa Grove, a forest of 1,000 coconut trees planted in the mid-1800s and named in honor of Kamehameha and his deep connection with Moloka'i, still stands today on the edge of Kaunakakai.

from
page 33

7/28/10

Segundo day 2 Wednesday

Rel 0948 h.

#1

SCI 78.7 SW=623

Notch - 78.6

TAGS:

RH

460760393B



LH

4607757344



#2

SCI = 58.3

SW = 43.8

Notch = 58.2

TAGS:

LH

460735250C



RH

4601694957



Rel 0954 h

#3

SCI = 69.8 NOT SAME SW 54.6

LH 4452486024

RH 4454667607

TAG
Recovery

healing shallow injury to dorsal neck
old tag loss LFL

7/28/10 Day 2 Segundo wed.

Rel 0957h

#4

SCL = 59.7 Notch 59.7

SW = 45.5

LH

46080B6C12



RH



4607495B21

Rel 0959

#5

SCL = 64.1 Notch = 64.1

SW = ~~8~~ 47.9

TAG
RECOVERY

LH

45275F5554

RH

4528600919

#6

SCL = 74.5

Notch 74.3

SW = 59.6

TAG

4607655A4E

LH



RH

460246055E



7/28/10 Segundo Day2 wed.

Rel 1005h (#7) SCL=69.6 Not=69.4
SW=53.3

TAGS:

LH 457C6C3F32


RH 4608010842


Rel 1007h (#8) SCL=57.3 Not=57.3
SW=44.6

TAG LH 460800252A


RH 46016D6613


- (#9) SCL=70.9 Not=70.7
SW=52.1

TAGS:

LH 48534E6C2D


RH 4851580B2A


Day 2

7/28/10 Day 2 Segunda's Wed.

Rel 1015 h (#10) SCL 75.5 NOT 75.4
SW 58.1

LH

48503E553C



TAG:

48515F741A



Wandabe RA

LH 1/4 missing & healed.

Short skinny tail - maturing male

Tail extends 11cm aft of Post centrals.

Rel 1017 h (#11) SCL = 50.5 Not = 50.3
SW = 38.9

TAGS

48531F071F



483E18484A



Rel 1020 h (#12) SCL = 67.0 Not CL = 66.8
SW = 50.5

Tags:

LH

48584B4916



RH

4830093265



7/28/10 Segundos second day wed.

DAY 2
#13

Rel 1026h

SCL=58.8 NOT=58.5

SW=44.0

Tags: LH

46021F0D56



RH:

457C232577



Rel ~~1026h~~
1029h.

#14

SCL=60.6 NOT=60.4

SW=45.5

LH

4607423C72



TAG:

RH

4601684A54



RH 1/8 missing & healed

Rel 1033h.

#15

SCL 64.3 NOT 63.9

SW=49.9

TAG: LH

4602386502



RH

4607253B76



7/28/10 Segundos 2nd day Wed.

Wednesday
Rel 1031h

#16

SCL = 71.8 Not = 71.8
SW = 55.5

TAGS:

LH

4602412401



RH

4602561156



Rel 1047 h

#17

SCL = 69.3 Not = 69.2
SW = 53.4

LH

4853246D48



TAGS:

RH

4851254057



Rel. 1053 h

#18

SCL = 35.3 Not = 31.8
SW = 30.8

New
Recruit

LH

483E53380B



TAGS:

RH

4853544517



Head width 5.8

Taith

small/white plastron/Sharp edge marginals

RFL = slashes Dorsal & ventral healed.

Deep notch injury to R postcentral

DAY 2
7/28/2010

Number
19

end

BOAT DIVE

by - outside House

KAMALAWI BICOY

SCI = 60.4 Notch = 60.4

SW = 46.5

LH



482934102E

RH

485812195F



FLAT PLASTIC ON

(ALL of them 36 thus far
have been robust)

Bull pen
Set site
replace 2"

Day 3 pick up just

OUT Side House - EAST OF
PALAALL HARBOR

28

7/29/10
Thursday

Begin 1022h.

#1 SCL 88.2 NOT: 88.2

SW=68.9 CCL 95.5

CW 89.0

Female

LH



485627391E

RH



48517C5F2C

Tag

Rel: 1026

left post central 5/11th marginal missing & healed

21.08974N

157.09710

#2 SCL=84.1 NOT=83.9

SW=63.0 CCL=90.5

CW 81.0

Tags: LH

48411D6670



RH

483B202F29



male: maturing

2 Chelonibia on Carapace

7/29/10

Pickup Day 3

88

#3 SCI=73.1 Not=72.9
CCP=80.0 CW=73.0
SW=56.3

TAG Recovery

Tag: 42500A4243 LH
424F243A49 RH

Tail lengthening - ♀

Rel 1039

#4

SCC=64.5 Not=64.2
SW=50.6 CCE 71.0
CW=64.0

LH

4850587D64



Tag:

RH

48583D3963



Impact injury 2nd central spongy
Tissue healing TISSUE

483C19763C

4852167508

7/29/10

Pickup Day 3

(#5) SCE = 79.0 Not = 78.8

RFL = Dorsal shoulder

1#3 Smooth to normal skin
Transitioning

SW = 60.6 CCE = 86.0 CW = 80.5

TSP

Tags: LH

4856400415



Rel 1052h.

RH

4839796E4A



2 puncture wounds second lateral left
healed. 8 cm apart.

(#6) SCE = 67.5 Not Same SW = 55.7
CCE = 73.0 CW = 67.0

Tags: LH

48414D7720



RH



4857143300

Rel: 1102

(#7) SCE = 71.2 Not = / SW = 54.9
CCE = 78.5 CW = 68.5

"maturing male Tail"

Tags:

483C19763C



LH

RH

4852167508



7/29/10

Pickup Day 3

(#8) $sce = 85.9$ $not =$ — $sw = 69.0$
 $cce = 93.0$ $cw = 83.0$

Tags:

LH

46080B4457



RH



4607526045

Mature ♀
 Chelonia on 4th Marginal Left.

Revised
Rel 1112

(#9) $sce = 63.0$ $not = 62.6$ $sw = 48.2$
 $cce = 69.0$ $cw = 60.0$

LH



46017B3209

RH



4607512742

Revised
Rel 1117

(#10) $sce = 71.9$ $not = 71.8$ $sw = 57.3$
 $cce = 78.0$ $cw = 76.0$

Tag: "

LH

4852024602



RH

46022D0950



97

7/29/10

#12

SCE = 73.0 NOT: 70.7 SW = 56.9

1127

AUG 11 2010

CCE = 79.5

CW = 72.5

48523E5A00

Tag:

LH



RH

48561C2F11



7/30/10

#8

SCE = 72.6 NOT: 72.5 SCW = 5

AUG 11 2010

CCE = 78.0 CW = 73.0

TAG Recover

pecal from prior tag

LH / 48523E5A00

RH / 48561C2F11

RFL - 1#2 smooth adjacent to neck

TS ↓

George ~

Mystery solved! If was a turtle you had tagged the day before. Note: you found #2 the next day.

Shawn

7/29/10 Pickup Day 3

#11

Rel H21

SCE = 77.9 NOT: 77.4 SW 58.9

CCE 83.5 CW 76.0

Tags:

LH

483B4A243E



RH

4856513707

nearly mature ♀

Tail length 16 cm beyond postcentrials

#12

1127

SCE = 73.0 NOT: 70.7 SW = 56.9

CCE = 79.5 CW = 72.5

Tag:

LH

48523E5A00



RH

48561C2F11



TS 2

#13

SCE = 61.0 NOT = 63.9 SW = 49.0

CCE = 70.0 CW = 61.0

1 #2 RT. Neck

Tags:

2 #3 RT. Hind - pink, scabby, bloody

Full bodied.

LH

483E6A200B



RH

483B1F3358



7/29/10

Day 3

Rel 1145 h

#14

Sce = 78.9 NOT 78.8 SW 61.6

Cce = 85.5 CW = 75.0

Tags

485151357C



LH

485123403C



RH

LH - healed 'V' notch distally

INTO Alcohol (sunburst) DNA Biopsy Taken from left hind - Placed in PST Tag bag
(sunburst) Very colorful carapace Photos Taken

Rel 1149

#15

Sce = 59.2 NOT: 59.0

SW = 44.4 Cce = 63.5 CW = 56.5

Tags: LH

483B034C20



RH

482D771A12



#16

Sce = 72.4 NOT = 71.4 SW = 52.6

1st, 3rd, 4th Lateral Pl. Cce = 77.5 CW = 67.5

Deep healed scratches -

Tags: LH

485219585C



RH

4856391B79



Left postcentral broken & healed

Early maturing male

END DAY 3
Bull Pen Net

#17

SCE = 65.1 NOT = 64.8 SW = 50.6
CCE = 71.0 CW 63.5

sent
picture sent
8/2/10

Tags: LH  485649161C

RH  4858395367

Kayla Matson
P.O. Box 28
Kualapuu, HI 96757

Go ~~to~~ p. 100

(100)

TS = 1 (from page 97)

LFF

1 - Smooth #3 ventral
1 - Small #2

GN
fid
00

CCL = 81.0

CCW = 73.5

SCL = 73.5

SCW = ~~57.4~~ 57.4

RHF Missing heel

LHF Half Missing heel

BOAT DIVE

(#18)

LH

4602563361



RH

4607560610



CCL = 88.5

CCW = 77.0

SCL = 80.9

SCW = 59.8

BOAT DIVE

(#19)

LH



4608095D2B

T

C

RH



46047C2313

42.5

31.0

tail

(#20)

CCL = 89.0

CCW = 78.0 LH

SCL = 82.7

SCW = 62.2

46021A4D37



T

C

RH

46023E156D



tail = 40.0

25.0

BOAT DIVE

107

7th grade 7/30/10

KAPUA LEE

P.O. Box 748

Kaunakakai, HI 96748

Need photo sent 8/2/10



4607213054

4607588610

4608655020

4604702313

46021A4037

46023E1380

PLACE #2

7/30/2010 Friday

DAY

4 pickup (LAST DAY)

401

GPS = $\begin{matrix} 21.09338 N \\ 157.07627 W \end{matrix}$

Resight LHF = 47 ϕ A 58 ϕ B
RHF = 46 ϕ B 6 ϕ C 25

ITG Recovery

sce = 68.2 Not: 68.2 scw = 54.2
ccl = 75.0 CW = 68.5

#2

sce = 71.9 Not: 69.9 scw = 56.9
ccl = 78 ϕ CW = 69.5

Tags: LH

4607525C64



RH



4602424D6D

#3

Smooth #2 vertical RFL

sce = 75.4 Not 75.4 scw 56.6
ccl = 82.0 CW 72.0

Tags

LH

46024D2579



RH

457C5F1A00



TS 1

7/30/2010 DAY 4

#4

SCE=62.6 NOT=61.8 SCW 48.8
CCE=67.5 CW 58.5

Tags:



46080D0F14

LH

4607724E39



#5

SCE=85.9 NOT ~~85.1~~ ~~SCW~~
CCE=94.5 CW 84.5
SCW=64.5

Tags: LH

4602365E12



RH



4607265339

♀-

Carapace above LH missing
(20x17cm) healed - old injury
LH in good shape -

#6

SCE=60.3 NOT=60.1 SCW=48.3
CCE 65.5 CW=60.0

LH

460166685F



RH

46077B090E



7/30/2010 Friday Day 4

#7

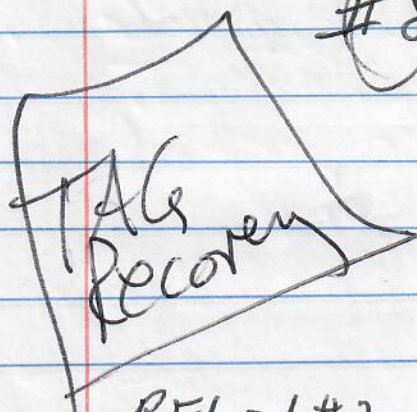
SCL=69.2 NOT=68.9 SCW=52.7
CC=75.5 CW=65.0

LH 
4608014249

RH 
46072E7D05


#8

SCL=72.6 NOT=72.5 SCW=57.1
CC=78.0 CW=73.0



LH 48523E5A00
RH 48561C2F11

RFL-1#2 smooth adjacent to neck

TS ↓

#9

SCL=59.0 NOT=59.0 SCW=45.5
CC=64.0 CW=54.5

LH - missing & healed
#

~~RH~~


4602522709

4602031B31

LH

7/30/2010
Day 4

#10

SCe=64.7 NOT=64.7 SCW=47.9

CCE=69.5 CW=60.5

LH

46076E5018



RH

4607522612



#11

SCe=70.3 NOT=70.2 SCW=56.2

CCE=75.0 CW=67.5

LH

4602334B4D



RH

46020A0938



#12

SCe=68.7 NOT=68.7 SCW=54.9

CCE=74.5 CW=66.5

Possible LH Tag loss

LH

46075F2073



RH

4607775B66



Pickup Day 4

END



7/30/2010
Friday

#13

SCP = 62.7 NOT = 62.3 SCW = 48.7

CCE = 67.5 CW = 58.0

LH

46020A6C7B



RH

4607213D54



TS 1

#14

SCP = 63.7 NOT = 63.6 SCW = 48.9

CCE = 68.5 CW = 62.5

Tamp

LH

46076A5A66

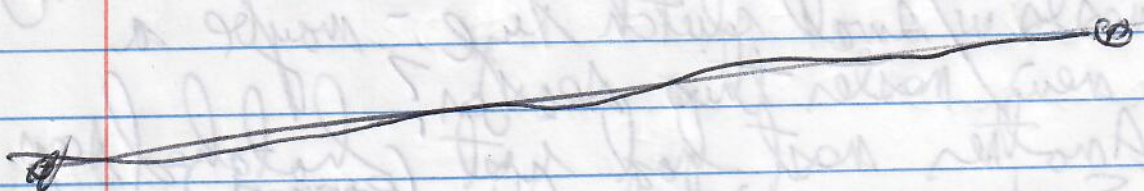


1 # 2 smooth

4601704A6F



ventral RFL ("Amp. 1") RH



Molokai • KAWAALO A
• Molokai Burger Plaque
• HAZARA VALLEY
6:20 pm Island Air

9/21/2010
TUESDAY to Molokai Alone -

Rented AAMOCAR (only agency at airport-like in July). Picked up by Lil MacMillan (with JOAN AIDEM), left car at airport parking lot. Drove to Kawaaloa Beach - Umet Feeders, Joe Kitagawa + relatives - Joe comes once a month. Two grandkids with daughter-in-law. Several other new volunteers. Kathy T. + 2 daughters - one is Nicole works ^{now} at Four Seasons for David Choi.

Walked beach + lots of small plastic particles. Excavated site #9 - Should have hatched in mid August. Lil was away some others may see hatching tracks. Found egg shells. 55 counted - no dead or embryos. Lil commented about some other nests w/ small clutch size - maybe a new nester this season? Another nest had just hatched so Sunday a.m. Not tracks seen so or day or two needed before excavation. Note a new nest laid Sunday night (so hatch not until mid-to-late November). 10

First of new
season?

need to
confirm
pic

9/21/0
Tuesday

Doing MAINLAND tourist
interviews at airport
when I departed ISLANDER

Picture early 1980s

EDDIE Grandfather picture

her
grandfather

Cheryl Stemer

P.O. Box 2014

Kaunakakai, HI 96748

Ph-646-0394

(Send photo of Great
Grandfather Petronilo Bicoy)

need

114

Need -
PLAQUES for Geitz
- Will
- HWF

Dart takes people to Lanai - Goes in ~~with~~ at
deep Channel to the east of White Rock
Took Doug / Chow Moulton hunting the
past weekend.
Julie works for Molokai Tourism.

Fishing Nets
John Kalilikane 553-3929

PUFFER ALERT
Arleone 553-5992

MOLOKAI 9/21/10 (CONTINUED
FROM P. 112)

(115)

9/21/10 ^{NIGHT} Basting track seen at end by rock,
walked to shore by gulch "Artistic"
with tracks (crabs). Soft muddy
under sand - sunk down.

Back to rental car ~ 9:45 am.
TO TOWN - walked around - noted nicely
named "Midnight (MidNITE) INN" sign
hanging. Browsed Fish & Dive,
wife had a papa "DAMIEN TOUR" (No one
under 16).

12:00 Met Ed, Drive, DAST, JULIE for
lunch at "MOLOKAI BURGER". Also
joined by Rod ^{Darius} ~~Boyfriend~~ and
Presented ^{SAX PLAYER} (to be married in January)
Commendation, PLAQUES
to each - Green to Medeiros, Blue to
Bicoy.

HOKU RANCH

116

Wolcott 2/2/10
Continued



118

11



120



127

Eddie Garcia Mailing:

FOR NOTES

owned for 25 years, are ~ 9 years old.
28 years, 25 years, 9 years old.

Mike Pulelos's email -
write and match him up with
LAVINIA

"Terry" Hospitality
MANAGER
Hokul Ranch
alternate 558-8550

LAVINIA CARRIER
808 558-8109

"Tom" Manager

Her Cell - (808) 551-1167

"POHAKU PILI COVE" (Paul Family's sta?)

Bill house here 2001. Very rough dirt road - 4-whe drive needed ~ 1.5 miles down

Bill Pulelos son Kam School - PhD dissertation in valley.

Last owner of ranch was — Murphy, white cattle

Note - Air strips, wind sock, none signs.

I emailed her
11-10-10 7pm follow up

Lavinia Currier

Pu o Hou (Keala) hoku@aloha.net
lavahoku@aol.com

8 NOVEMBER 2010

Monday, Depart 6:55 AM Island Air
for Mokai w/ Joy Browning FWS, Big Breakfast
Breakfast at Mokai Bury #6 + coffee.
Joy rented car - drove to Halawa - stopped
to walk Waialua Beach - Newport -
suitable for nesting - white Sand. ^(People)
Pu o Hou rough story - met Keala
had talked to her in September. Keala

Map shows a Kuwa place
name - north near Halawa Point, but
likely no sand there. Met LAVINIA 10:15 AM
+ JEDIE GARCIA Arrived, 20 years in
valley - split up from wife - lives half time
alternating here & at his farm by
airport. All of us drove to valley
stopping at lookout to talk.

Meeting triggered by citation to ranch
from Jeff with toilets and camping structures
left all year round - intimidating to
others wanting to camp (See p. 124)

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Community Contributed

Halawa Valley Clean-Up

BY LAVINIA CURRIER, PU`U O HOKU RANCH

I wish to make public to the people of Molokai the intentions of Pu`u O Hoku Ranch in regards to the camping in Halawa Valley. Historically, the ranch has welcomed campers in the summer season on the far side of Kama`alaea Bay for short periods, hoping that by limiting the length of any family's stay there will be room for all interested families to enjoy the beauty and serenity of Halawa. Over time, certain campers extended their stay to the entire summer, and we at Pu`u O Hoku received many complaints about these long-term campers dominating the beach area. Long-term campers make it difficult for others to feel comfortable to picnic and or to find places where they can camp with their children.

Several years ago, we met with the longer term campers as a group and it was agreed to limit the time of camping within specific guidelines. This agreement was not honored the following summer by some of the campers and therefore we had to remove camps.

Now more years have gone by and this fall we received a notice from the County of Maui regarding the illegality of the semi-permanent camps and their latrines, which violate county rules. Pu`u O Hoku was notified that we would receive fines for those struc-

tures on Ranch land. In addition, we are receiving renewed requests from the community to "do something about the campers."

Two weeks ago the landowners of Halawa Valley met and they agreed that the structures should be removed and the beach area cleaned up for all families to enjoy. These landowners were also concerned that the water use by the campers in increasing numbers for longer periods of time had begun to impact their water levels, essential for their farms and lo'i.

We contacted the campers with structures still standing in October and shared with them the letters we had received and asked that they voluntarily remove their structures by the end of the month; if they do not, we will be obliged to remove them and donate the materials.

Following the removal, we will do some cleaning in the valley, and invite the community to participate in a clean up with Halawa residents, campers and landowners including a potluck.

Our objective is to return Kama`alaea Bay in Halawa to once again be the protected and safe place for everyone's children and grandchildren to play. Mahalo for your understanding.

End
Mou
End
ce

KAMA`ALAEA
Bay

Puu o Hoku Ranch

11-8-2010 Hakuwa Valley - Molokai

Drove from look out to valley floor then across wood bridge to left hand beach. Walked beach - structures (poles) seen. Far end the compacted dirt road is right at beach and structures left of "road". No proper nesting habitats seen here. Eddie said river discharge this area in heavy rain - rest of time underground discharge. However no

Asparagopsis
(Limo Kohu)

algae noted on rocks - very little washed on beach ^{one piece of algae} (forgot feeding). Eddie says

occasionally seen. Also he's seen a turtle or two in river (how far?). Given nutrients into, large question then - why no algae?

walked to sand beach (direction of river ^{relative} 2/3 of entire length this side has suitable nesting beach. Nappaka

photos

are Ironwood tree present. Saw depressions of ~ 3 nestings - probably this season. Didn't want to excavate yet. Drove around to

11-8-8-11
Hobbs Valley - Motokai
1000 lbs to hand
I was here last night to make
the bird from under
I walked down - hand
I was here last night to make
the bird from under
I walked down - hand

noted blue
Sand LIKE
Kauai

Eddie notes - 3 "adults" dead - Hobbs - at
the same time. Bill Pulea
was informed at the time. Said to
cover it up.

occasionally been. The
I was here last night to make
the bird from under
I walked down - hand
I was here last night to make
the bird from under
I walked down - hand

Hatwut 11-8-2010

126

right side of valley - Joy and Eddie walked out - No sign (evidence of nesting since I was there 11/21/2010. Waves have washed out (cut back) some forest as is normal for winter seasons. Messerschmidt's nearly dead at end near wall of valley. Found eggs shells at surface of several places - unsure if from hatched or unhatched eggs - nevertheless they should be at surface.

Drove back up to ranch - to lodge. Lunch with ~~the~~ Lavinia cousin (Sophia) and husband ~~NAME~~? Live in North KOTAKA - organic farm enthusiasts.

stand? narrow?

Met "Rhem" - worked at ranch a long time - rusted pickup truck was used when new to transport all materials to build 2001 house at Fagan's beach (POTAKU Pily Cove). He drove Joy and I there for a 10 min look at beach where nesting tracks and digs had happened about mid- to 3rd week of August - 75 days ago. Sitting water behind sand - likely salt and brackish.

photos

HAWAII

129

11-8-2010

No possible way embryos could be viable with ambient water emersion. No other nesting her know to them (but consider blow-sand factor).

Drove to airport - Departed on Island Air ~ 5:30pm.

130

11-8-10

HALAWA
VALLEY

↓
"Camping" Side
(Left
when facing
seaward)



132

CARSONS

11-8-2010





MERRY CHRISTMAS 2012!!!

AND....If we are all here celebrating Christmas this year, then Joey was right about why the Mayan stopped his Calendar at 12-21-2012 -"He was TIRED!! PAU ALREADY!!" hahaha!

What's new this year? Eddie's right hip, for starters! Yup, we've become little old folks, talking about our surgeries! But thank God for those surgeons! They make life much less painful! He's doing well & really is trying to slow down..... really.....he is..... ☺ He went in for some more on his back on December 11th & it should be a big improvement in the pain department - again, thank God for these surgeons!


And WOW our grandkids are taller than us!! Ok, well Tiana is still a LITTLE shorter than us, but it won't be long. Such terrific kids! We have so much fun with them! Kekoa (the awesome paddler with all the medals! ☺) started at Seabury Hall this year.... Yes, HIGH SCHOOL!! What???? That can't be right! Heavy sigh..... and the girls, Kaila & Tiana, started at Emanuel Lutheran this year - so happy to have them back in Christian school! Where, according to Tiana, "you can talk about God and they won't tell you to shut up!" like at their last school! Thank you, Lord! Kaila is starting volleyball & I think she will be awesome! She's truly a Coddington/Medeiros blend - tall & extremely strong! Stay tuned, you'll be hearing about her soon, I'm sure!

Our businesses..... I'm in year #25 at the Credit Union (but have no plans of leaving just yet), Eddie is scaling back but still doing the landscaping thing, but now has help from his nephews, Rico & Shawn - God bless 'em!! The laundromat is still making us "quarter-aires", but we closed Hayaku on November 29th - the first step in the new "retirement" phase of our lives -- it was a good 5 years, but we really feel God's peace about it all. ☺

..... AND in the critter department..... The menagerie lives! Forgot to mention last year, a really cute orange kitty showed up - a lonely little guy all by himself - Rufus, by name - he discovered if he laid down in the cat food dish, the other cats would have to nuzzle him to get the food - so he'd lay there purring & rolling around in the dish thinking they were just loving HIM! It was sooo funny! His latest trick is he stands up on his hind legs just like a little man & waits for me to pet him! What balance! And of course, Sweetie the dog just loves having all these kitties to sniff & play with - she even lets a chosen 5 (yes, that's FIVE!) of them eat out of her dish with her! What a sight that is! A 90 pound German Shepherd sharing her dinner with a bunch of cats!!! Who'd a thunk it was possible?

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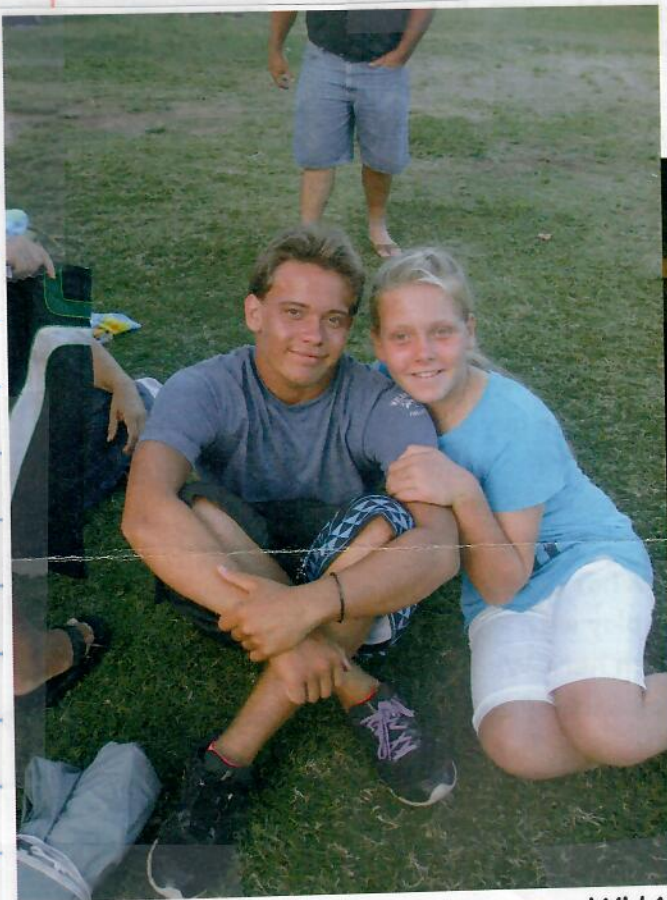
And so another year closes - another year of God's love, provision and grace. We are thankful for His leading and his protection in these uncertain times. As Corrie Ten Boom said, "There's no safer place to be than in the center of God's will." Amen! God bless and keep you all safely in his arms!

LOVE + HUGS EDDIE + DI
+ ALL THE FURRY LITTLE FRIENDS! 

 Mrs. Diane Medeiros
PO Box 1216
Kaunakakai, HI 96748-1216



Joey's family - Kekoa, Tiana, Joey, Renee & Kaila - a great bunch of peoples!!



Kekoa & Kaila - inseparable, no matter WHAT Kai says!! And sweet, lovely Tiana!!