

2015

GEORGE BALAZS

881-641-436541 FFS

881-641-436621 FFS BACKUP

- KAPOHO
- TURKEY
- FP SUMMIT
- KAUA'I TUNNELS
- SLP HATCHLING
- PITTAGS

caliber®

COMPOSITION BOOK

6-10 APRIL 2015 - KAPOHO

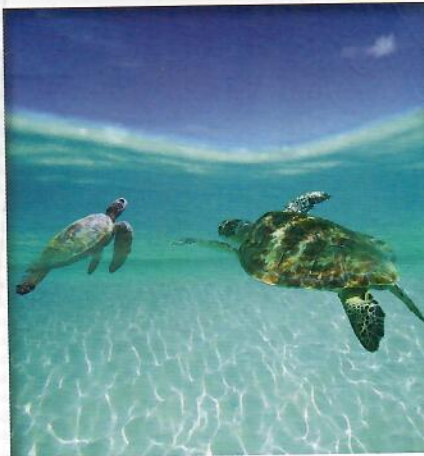
14-26 APRIL 2015 - TURKEY

11-14 JUNE 2015 SUMMIT

14-15 JULY 2015 KAUA'I TUNNELS

HOŞGELDİNİZ

WELCOME



AMERICAS • EUROPE • MIDDLE EAST
AFRICA • ASIA • AUSTRALASIA

Wide Ruled

100 Sheets

9.75 in x 7.5 in
(24.7 cm x 19 cm)

Sihkea JIM

VEN
FAN

14 y.o.

← Congolese
Marshalese

Alicia Chow 周佳利 BEIJING

↙ nice

Pelican #2710 Headlamp

BARSELL FRONT GATE 3333
BACK GATE 5737

Need

JOHN and SANDI BARSELL
RR2, BOX 3933
PAHOA, HI 96778

"Every Concern voiced needs to be compared & contrasted with alternatives of what is being concerned about"

HUI-LING TAIWAN MAY 15, 2015

CATHOLIC 3 min after 4AM
FUNERAL MAY 23 SATURDAY

http://www.wfm.noaa.gov/eop/home.html

BOARDING PASS
PLATINUM
NAME OF PASSENGER
BALAZS/GEORGE HARVER
HA 115219970
FROM HONOLULU
TO HILO
HAWAIIAN AIRLINES
CARRIER FLIGHT CLASS DATE TIME
HA 382 S 06APR06A
GATE BOARDING TIME SEAT SMOKE
55 906A 16D
ZONE 1
PREMIUM
ELECTRONIC
1CB /HNL

BOARDING PASS
PLATINUM
NAME OF PASSENGER
BALAZS/GEORGE HARVER
HA 115219970
FROM HILO
TO HONOLULU
HAWAIIAN AIRLINES
CARRIER FLIGHT CLASS DATE TIME
HA 383 A 10APR106A
GATE BOARDING TIME SEAT SMOKE
6 1046A 1B NO
ZONE 1
PREMIUM
ELECTRONIC
40C /ITO

PATTY BELCHER



Hawksbill House in Kapoho

2 bedroom, 2 bath home near ocean

www.VRBO.com, # 384987

Patty Lei Belcher

hawksbill@hawaii.rr.com

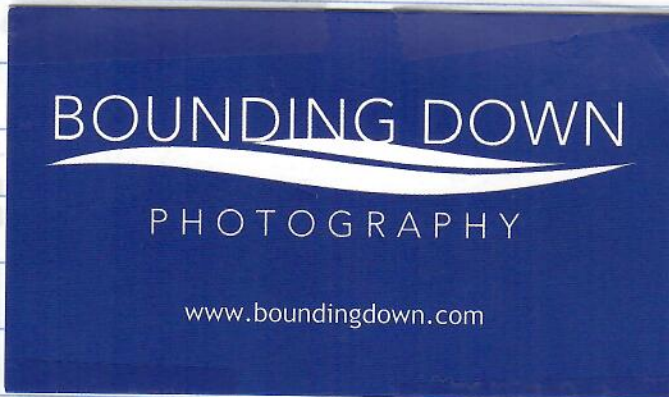
Phone (808) 640-4006

In homage to Wai-a-ka-'ea [Water used by Hawksbill Turtle] Bay

CONFERENCE CALLING: 888-390-7574

Leader Code: 8583765

PARTICIPANT CODE: 5048650



[Handwritten scribbles]

The Nature Conservancy
Protecting nature. Preserving life.

Hank Lynch
Field Manager, Kane'ohe Project

923 Nu'uuanu Avenue
Honolulu, Hawaii 96817

Tel (808) 721-4223
hlynch@tnc.org
nature.org

RECYCLED Paper
FSC® C051259

100% post-consumer materials ♻️

Chinese Cemeteries, Maui Island

Name	Date Range	No. of Graves	Location	Caretaker Org.
Chang Family	1928-1961	5	Makena	Unknown
Hana Chinese	1916-1918	5	Hana	Unknown
Kwong Fuk Tong	1915-1971	77	Waiehu	Kwong Fuk Tong Cem. Ass'n.
Man Fook Tong	1937-1979	26	Lahaina	Wo Hing
Heong Sam Chong	1915-1978	68	Pa'ia	Heong Sam Cong Cem. Ass'n.
Tam Sing	1912	1	Pukalani	Unknown
Fook On Tong	1912-1983	37	Keokea	Unknown
Pu'unene Chinese	Unknown	51	Pu'unene	HC&S

5/19/15 Waikiki
**Undeclared war
occurred in 1893**

Your story about Honouliuli becoming a national monument did well in explaining the undeclared war of Dec. 7, 1941, to start World War II and what can happen to prisoners of war ("Monument's dedication hopes to remove stigma of shame," Star-Advertiser, April 1).

It was earlier, in 1893, when the first undeclared war happened in Honolulu and the government

HSA
collapsed. The head of the government was arrested, tried and convicted of treason and imprisoned. The two incidents have similarities but the Hawaii incident has never been addressed in 122 years.
Louis "Buzzy" Agard
Downtown Honolulu

Date: Tue, 14 Apr 2015 19:14:52 -0400
From: sbarsell@aim.com
To: itsahonuworidinhawaii@hotmail.com
Subject: Re: From George Balazs

RR 2, Box 3933, Pahoa, HI 96778.

I plan to send the information you sent previously to members on the Community forum. is very interesting. Thank you and your crew,
Sandi

My chinese name: Lo Liu-chih(羅柳擘), only few people know the english name Lo robert
I am teaching in Department of Geography that is located in Heping Campus : No.116
Heping 1st Rd., Lingya District, Kaohsiung City 80201, Taiwan (R.O.C.)

Ohayogozaimasu George-san,

Thank you for offering.

Our address are

Naoki: Kamokogahara 1-8-1, Higashinada, Kobe, Hyogo 658-0064, Japan

Yoshi: Sea Turtle Association of Japan, Nagaomotomachi 5-17-18-302, Hirakata, Osaka 573-0163, Japan

Taka: Asahigaoka 3-15-58-106, Tarumi, Kobe, Hyogo 655-0033, Japan

Everlasting Nature of Asia

President

Hiroyuki Suganuma

MTSG, SSC, IUCN

Acty Part II 4F, Nishi-Kanagawa 3-17-8

Kanagawa-Ku, Yokohama, Kanagawa 221-0822, Japan

Tel +81-45-432-2358 Fax +81-45-432-2638

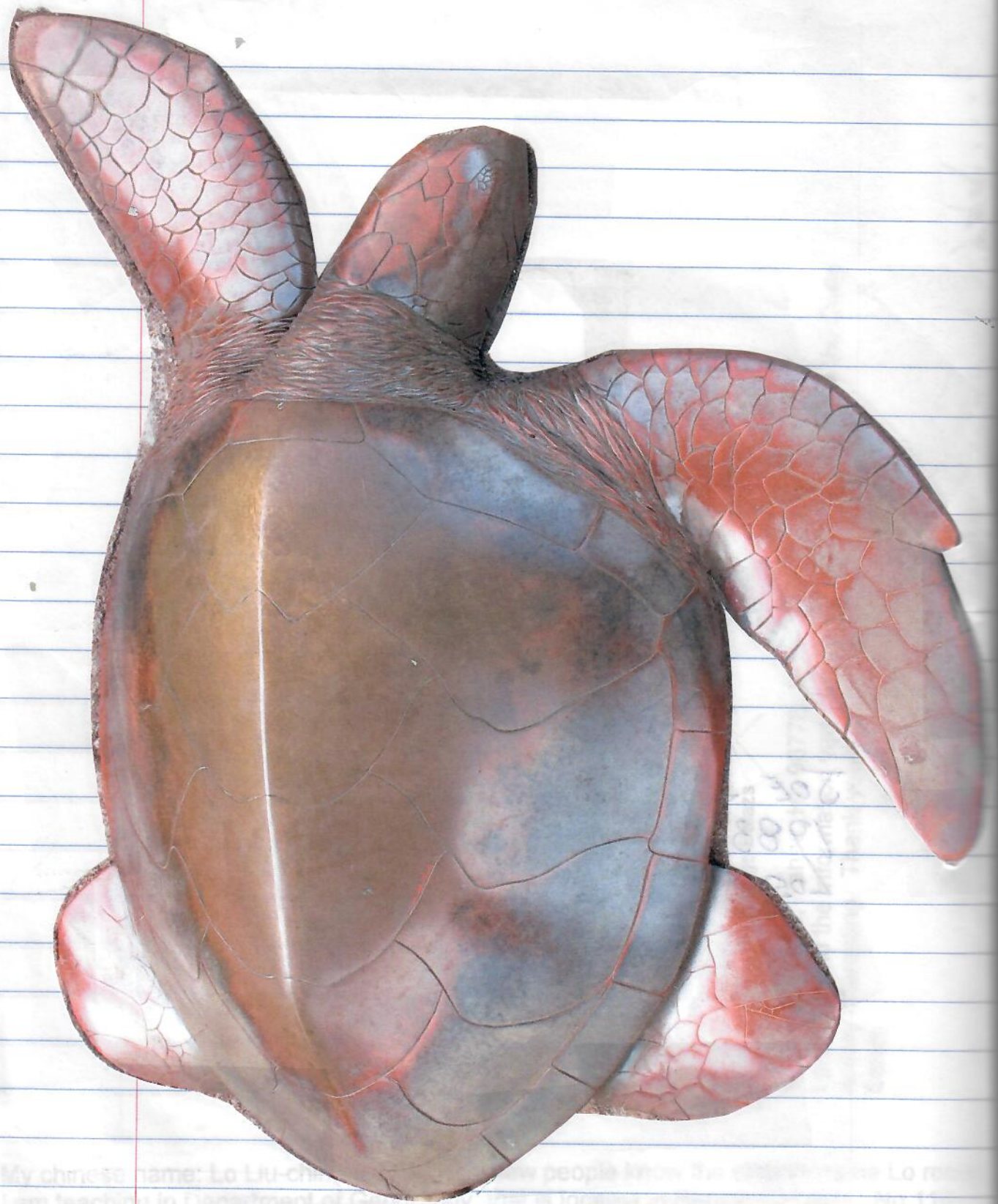
e-mail; Suganuma@elna.or.jp

URL: <http://www.elna.or.jp>

JOE SPRING

1983 N. VERMONT, APT. 16

LOS ANGELES, CA 90027



My chinese name: Lo Liu-chi
I am teaching in Department of Geography
Building 1st Fl. Lingya District, Kaohsiung City 80201, Taiwan, R.O.C.

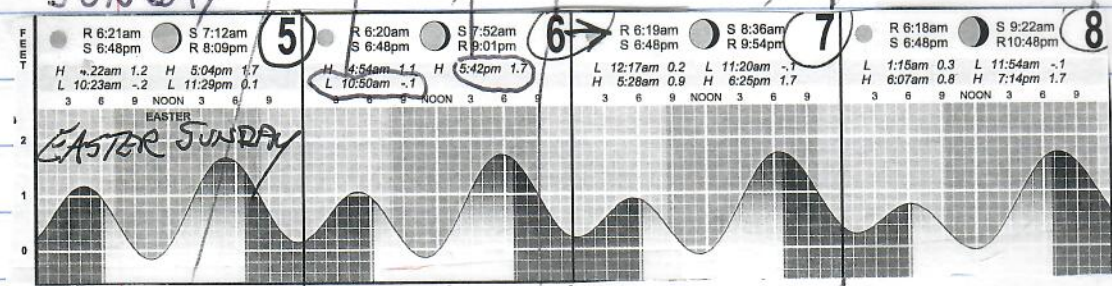


P

N=4
(2 Hot pond (1 Recap)
2 Hand
Swimmed BI)

N=14 new
N=10 Recaptured
24 TOTAL

SUNDAY MONDAY TUESDAY Wednesday

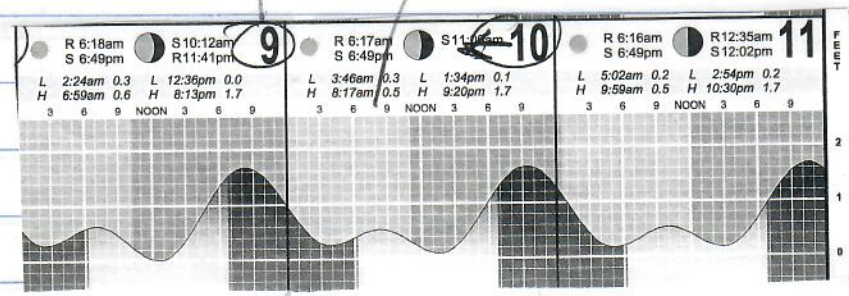


N=4
(2 BI, 2 Hot pond)
3 New; 1 Recap

N=11
BLIND
INLET
5 New; 5 Recap

N=3
(1 BARSELL
SAT. TAG)
2 BI
2 New; 1 Recap

depart



Thursday
3 New; 3 Recap
N=6
1 BI,
5 BARSELL

Friday

Saturday

3 ÷ 24 = 12.5% (L12%)

N=3 (But 2 were selected)

(11)

TMRS = TS 2

BLIND INLET Recap.

TS 3

BARSELL LAGOON

Recap. LARGE LHF

TS 2

" "

New

McDermid — Row Kittle

CLOACAL SWABS = 027

SAME TURTLE 025, 029, 030
015

SAME TURTLE 020, 024

SAME TURTLE 023, 028 SAME BUT DIFFERENT TURTLES
026 ("026")

018

017

016

019

022

012

021

N=14 Turtles Swabbed

(18 Vials)

Blood N=20

(17 TSP; 3 w/ ^{TS2-2} ~~TMRS~~ _{TS3-1})

TOTAL cc =

438.7

Blood

SCOUTING -

- YUNIS
- BARSELL
- Channel in
- Blink inlet
- Hot pond
- Champaign - Chong - ^{nearly} Right of way ^{EU2}
- Dead end streets
- Drive in Kamukatti
- Pele Potho
- VACATION LAND

George,

Thank you so much for your dedication to turtle science and for going out of your way to help us at NIST collect invaluable samples. Our trip to Kapoho was fun, rewarding and more successful than I could have imagined. You know I couldn't resist getting this cute yukata for Daisy. It's a fun gift from all 4 of us.
Mahalo from Jenn, Hank, Tracey + Jessica

OHIO FAX

6099 71-4 (13)

4/6/15

MONDAY

need EMAIL Turtle Receipts

Terry Meeker / Roger Meeker
"Hilo Women's Club"

fatty → weeds



N=14 new KAPOHO

4C4A462F07



4C4A71080D

4C4A

4C4A744E42



1 LABEL MISSING =

4C4A683C45



4C4A3D5242



4C4A453E29

4C49727B7E



4C4A74133A

4C4A6A7B56



4C4A3B5D62



4C4A44156F



4C497A0C20



4C4A62121E



4C49734351

4C4A074B12



4C4B11443A



4C497F2649



4C4A026676



4C4B0E7019

4C4B044C08



4C4A78665C

4C4A03761C



4C4B175B64



4C4A00057C



4C4B10592F

4C49791548



4C49592522



4C4A64787D

ARGOS I-F

52704

7th Floor

2nd Floor

26

2nd Floor

4

Kapoho - thank you

1 message

Jennifer Lynch - NOAA Affiliate <jennifer.lynch@noaa.gov>

Tue, Apr 14, 2015 at 8:36 AM

To: Frank Parrish - NOAA Federal <Frank.Parrish@noaa.gov>

Cc: George Balazs - NOAA Federal <george.balazs@noaa.gov>, Tracey Schock - NOAA Affiliate <tracey.schock@noaa.gov>, Paul Becker - NOAA Affiliate <paul.becker@noaa.gov>

Hi Frank,

I wanted to inform you of how wonderful our green turtle sampling trip went with George Balazs at Kapoho last week. We traveled there to accomplish 4 objectives for NIST and were highly successful at all four! We couldn't be more pleased with how it turned out. Tracey Schock came from our NMR lab in Charleston in order to get discrete and precise blood sample processing times for a metabolomics study. She is returning home with everything she needs for a very well designed and implemented experiment. And BEMAST (the sea turtle specimen bank) successfully archived blood from 21 green turtles and prey, from the mouths of those that were eating.

George knows just when and where the turtles are going to be! It was fun and rewarding to work with him yet again. Our collaboration is something that I hold very dear and appreciate beyond words. So thank you for your support from PIFSC Protected Species Division and know that our efforts are going towards valuable scientific goals.

Mahalo,
Jenn Lynch

1007pm
Release 4-8-2015

ARGOS ID

(17)

Wednesday

52704

TELONIST# 647937

Adult MALE

S - 76.2 58.9

C - 82.0 76.5

TAIL 33.0 e 21.5

147 lbs

~~147~~

BARSEIL POND GPS

19° 29.916 N

"SANDI Site"

154° 49.272 W

Lucky

OLD PIT TAGS

LH 44545D612B

RH 44521C5A59

(21)

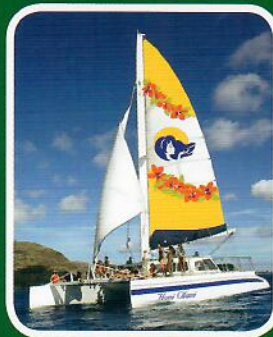
TURTLES



Turtles, snorkel, sail

Turtles
Guaranteed*

- See turtles, whales & other marine life
- Snorkeling with in-water guides
- Choose from 2-hour cruise, or 3-hours with lunch
- Sail the South Shore, see Diamond Head & Waikiki
- ***GUARANTY:** See turtles or sail again free



2 or 3
hours

\$79 adult/\$59 child

8:30-10:30 a.m.

\$119 adult/\$89 child

11:30 a.m.-2:30 p.m. with lunch

Waikiki



808-234-7245

We answer 24 hours

(SAIL)



Abstract ID: 5903 **Type:** Oral **Subject:** Conservation, Management and Policy **Country:** United States
Submitted By: George H. Balazs

PHOENIX RISING FROM THE ASHES: 42-YEAR HISTORY OF CHANGING ECOLOGY AND RESTORATION OF THE HAWAIIAN GREEN TURTLE

George H. Balazs¹, Linda R. Balazs² and Connie Ka-yan Ng³

¹ IUCN Marine Turtle Specialist Group, Oceania Region, 992 Awaawaanoa Place, Honolulu, Hawaii 96825

² 992 Awaawaanoa Place, Honolulu, Hawaii 96825

³ City University of Hong Kong, Tat Chee Avenue, Kowloon, Hong Kong Special Administrative Region, China

In 2012 the genetically discrete and geographically remote Hawaiian green turtle population was downlisted within IUCN's Red List to the category of Least Concern following a comprehensive assessment by the IUCN Marine Turtle Specialist Group (see). For the past 40 years Hawaii's green turtles have exhibited new behaviors and adaptations along with their increasing numbers and concomitant expansion into new habitats. These favorable changes have included: significant increases in terrestrial basking; nesting in the Main Hawaiian Islands; formation of underwater cleaning stations; daytime foraging in shallow water near shore; close co-existence with and tolerance of people; feeding on new types of vegetation; and the use of streams and rivers for underwater resting. Even more beneficial changes and acclimation can be expected in the future, including shifts in nesting to adapt to climate change and sea level rise, as sea turtles have successfully done with resiliency for millions of years. Several other sea turtle populations besides the Hawaii stock are also showing remarkable restoration from over-exploitation caused by efficient fishing technologies and human encroachment into previously pristine turtle habitats. At the same time there are many sea turtle stocks at seriously low levels that continue to decline. This dichotomy in sea turtle conservation status is one of the great challenges of our time in balancing appropriate protective measures along with limited sustainable use, where such harvest and other forms of human utilization might be legally allowable and advantageous to both turtles and people. The natural direction toward which we should be moving regarding sea turtle conservation, as expressed by the Sea Turtle Association of Japan, is "to bring back rich and plentiful nature that allows and tolerates a diversity of values and world views." In light of their 40-year rise to abundance, Hawaiian green turtles constitute a unique experimental model to comprehensively understand the dynamics of a recovering sea turtle population. In addition conservation practices in Hawaii, founded upon four decades of research results, can serve as a real-life learning ground for people in other regions striving to save and sustain their own charismatic and culturally important sea turtle resources. Successful conservation programs that endure are best built with local communities as their foundation. National legislation and international conventions, based on sound ecological principles, clearly also have importance. However, strategies for conservation are made robust and equitable when they integrate cultural and traditional components forged at the local level by the very people closest to the turtles and their environment.



Abstract ID: 6046 Type: Poster Reserve Subject: Conservation, Management and Policy Country: United States
Submitted By: Denise Parker

CHINA-USA 2014 WORKSHOP IN HAWAII: MOVING FORWARD INTO THE FUTURE WITH TRUST AND FRIENDSHIP TO ADVANCE SEA TURTLE RESEARCH AND CONSERVATION

Denise M Parker¹, Lili FU², He-Xiang GU³, Tsung-Hsien LI⁴, Wenhua LIU⁵, Robert LO⁶, Margret Murphy⁷, Yamin WANG⁸, Zhong-rong XIA³, Frederick YEH⁹, Bruce Yeh¹⁰, Thierry Work¹¹, John Wang¹², Shandell Brunson¹², Chia-ling FONG¹³, Connie NG⁷, Jeffrey Seminoff¹⁴ and George Balazs¹²

¹ Joint Institute for Marine and Atmospheric Research, Newport, Oregon USA

² Sea Turtles 911, Haikou, Hainan PR China

³ Huidong Gangkou Sea Turtle National Nature Reserve, Guangdong PR China

⁴ National Museum of Marine Biology and Aquarium, Pingtung, Taiwan

⁵ Marine Biology Institute Shantou University, Guangdong, PR China

⁶ Kaohsiung Normal University, Kaohsiung, Taiwan

⁷ City University of Hong Kong, Kowloon, Hong Kong SAR, PR China

⁸ College of Ocean, Shandong, PR China

⁹ Hainan Normal University, Haikou, Hainan, PR China

¹⁰ Torrence California, USA

¹¹ US Geological Survey, Honolulu, Hawaii, USA

¹² Pacific Islands Fisheries Science Center NOAA, Honolulu, Hawaii, USA

¹³ Academia Sinica, Biodiversity Research Center, Taipei, Taiwan

¹⁴ Southwest Fisheries Science Center NOAA, La Jolla, California, USA

A pioneering China/USA workshop on sea turtles was convened in Honolulu, Hawaii on 25-29 August 2014 under the Living Marine Resources Panel Initiative of NOAA and the Chinese Academy of Fishery Sciences. This unprecedented workshop was attended by scientists from USA government agencies along with top researchers and sea turtle conservationists from throughout the China region. The meeting was diverse, including oral presentations by all participants, a necropsy practicum where everyone received hands-on experience conducting necropsies of Hawaiian sea turtles, field outings to ocean-capture and tag live green turtles and observe basking turtles in the wild, and an instructive visit to Sea Life Park to view sea turtle research, educational displays and husbandry facilities. During an interactive session near the end of the workshop, participants mutually developed a collection of 14 recommended next steps designed to foster continuing dialogue, trust, and collaboration. These action items consisted of: Implementation of ways to have better and increased communications; Creation of a China/USA Sea Turtle Working Group with workshop participants as the founding members; Convene again in a subsequent workshop somewhere in the China region during 2015/2016; Establish a directory with email, phone, Wechat and other contact information for digital communications; Create a list of other sea turtle researchers and conservationists that would be good resources for additional China/USA efforts; Explore funding opportunities within China for more research and material support for sea turtle work; Create a Visiting Scientist/Scholar Exchange Program; Promote enhanced collaborations among scientists within the China region; Identify pathology laboratory access and capacity within the China region; Explore Ocean Park Conservation Foundation Hong Kong funding for sea turtles and a sea turtle workshop; Identify key players to help foster China region collaboration by determining what interests them; Inquire from within China about China/USA consulate cooperation; Propose general wildlife health and disease workshops for the China region; and Continue building a literature list of all China region sea turtle publications and reports. The China/USA Sea Turtle Workshop laid the foundation for participants to continue to work together with trust and friendship to advance sea turtle research and conservation in the China region. A proposal has now been submitted to support a 2015 workshop in the China region.



Abstract ID: 6162 **Type:** Poster **Subject:** Education, Outreach and Advocacy **Country:** United States
Submitted By: Molly Hagemann

SKELETONS IN OUR CLOSET: SEA TURTLE SPECIMENS AT THE BERNICE PAUAHI BISHOP MUSEUM IN HAWAII

Molly Hagemann¹, George Balazs², Irene Nurzia Humburg² and Teresa Lopez¹

¹ Bernice Pauahi Bishop Museum, Honolulu, Hawaii USA

² Pacific Islands Fisheries Science Center NOAA, Honolulu, Hawaii USA

There are many advantages to natural history collections collaborating with marine turtle research and conservation programs to archive well-documented biological material. From a scientific standpoint, a diverse collection of taxonomically identified specimens located in a single institution can provide a wide variety of research opportunities without the financial and logistic costs associated with field studies. Specimen data, such as localities and collection dates, allow population, ecological, and genetic studies to be calibrated with time, which makes it possible for researchers to examine changes in populations and to track those patterns in relation to natural or human-induced changes in the environment. From an educational standpoint, donated specimens can be used during collection tours and special events to generate awareness within the non-scientific community of the challenges faced by those involved in sea turtle conservation. Bernice Pauahi Bishop Museum and NOAA's Marine Turtle Research Program (MTRP) recently partnered to archive a collection of sea turtle skeletal material, the vast majority of which was collected in the Pacific over the past three decades. This accession of 120 specimens has vastly improved the Bishop Museum's marine turtle assemblage, making it one of the world's largest and most diverse collections of sea turtles from the Pacific region. It has doubled the number of specimens of the following species: *Caretta caretta*, *Dermochelys coriacea*, and *Eretmochelys imbricata*. And it has more than doubled the number of *Chelonia mydas* specimens, bringing the count up from 49 to 125. This poster outlines the workflow used by Bishop Museum staff to catalog, house, and database this large and valuable collection of specimens. By generously donating this material to the museum, MTRP has made the specimens themselves and their data accessible to the scientific community, ensured that the specimens will be housed in excellent storage facilities in perpetuity, and provided outreach tools that the museum can use to further its educational mission and promote interest in conserving sea turtle populations around the globe.



27

Abstract ID: 6006 Type: Poster Subject: In-Water Biology Country: United States
Submitted By: George H. Balazs

SHIPS OF OPPORTUNITY: RELEASING SATELLITE-TAGGED LOGGERHEADS ON THE HIGH-SEAS TO STUDY THEIR PELAGIC ECOLOGY

George H. Balazs¹, Marc Rice², Denise Parker³ and Jeffrey Polovina¹

¹ Pacific Islands Fisheries Science Center NOAA, Honolulu, Hawaii USA

² Hawaii Preparatory Academy, Kamuela, Hawaii USA

³ Joint Institute for Marine and Atmospheric Research, Newport, Oregon USA

Life on the high seas is one of the last great frontiers for sea turtle exploration, inquiry, and discovery. In the Pacific Ocean, significant progress has begun in understanding the ecology and oceanic movements of juvenile pelagic loggerheads in northern and southern hemispheres comprising distinct genetic stocks derived from nesting beaches in Japan and New Caledonia/Australia respectively. Our advances in knowledge to date have been made possible by the availability of smaller satellite-linked tracking tags and the enhanced sensitivity of CLS Argos receivers on board orbiting satellites. We have overcome the immense challenge of directly capturing immature loggerheads on the high seas by substituting robust aquarium-reared turtles transported by ship for offshore release. Trained shipboard observers have also satellite-tagged and released pelagic long line by-catch turtles on the high seas. Turtles incidentally taken in offshore commercial pound nets targeting pelagic fish have also contributed to our international research partnership program. From 1997-2012, 523 loggerheads with satellite tags have been released, 374 of which were aquarium reared involving 14 deployments >2003 from eight different ships, including cargo vessels, fishery training ships, a passenger liner, a French Navy ship, a fishing vessel, and a whale-watching tour boat. Eighty-eight turtles from the New Caledonia Aquarium des Lagons were released south of the equator, and 286 from the Port of Nagoya Public Aquarium Japan were released in northern latitudes. Carapace lengths ranged from 23-75 cm. Deployment locations included: the Kuroshio Current off Japan (30-35°N, 131-141°E); the Sea of Japan (37°N, 136°E); midway between Japan and Hawaii (33°N, 176°E), midway between New Caledonia and New Zealand (30°S, 171°E); and 200nm southwest of New Caledonia (25°S, 163°E). Tracking lasted up to 1434 days in the northern hemisphere and 764 days in southern latitudes. Maximum distance traveled by a northern-stock turtle was 25,900 km and 15,290 km for a southern-stock turtle. Detailed findings to date of our pelagic loggerhead investigations are presented in 12 journal publications available at: [http://www.pifsc.noaa.gov/sea_turtle](#). Three overall conclusions can be drawn from the success of our work: 1) International partnerships of mutual understanding, trust, and goodwill are essential to study sea turtle populations that span an ocean basin; 2) Aquarium-reared loggerheads released into appropriate high-seas habitats are acceptable replacements for the research of wild-captured turtles; and 3) Our voluminous archive of tracking data constitutes a significant resource for additional analytical approaches involving collaboration.

POPULATION

GLOBAL VIEW

CHINA 1.4 Billion

INDIA 1.2 B

US & CANADA - 360 million

MX - 125 M

S. AMERICA 319 M

Greater EUROPE - 890 M

WORLD POPULATION 7.3 Billion

~~near~~ CHINA Region Coastline - ~ 18,000 km (11,000 miles)

INDIA Region Coastline -

MAINLAND

CHINA > 14,500 km

HAINAN - 1,966 km

TAIWAN - 1,567 km

Hong Kong 733 km

UN

VIP

BALANCE

RECORD

UA212

UA53

50



NAME / ISM

FROM / NEREYE

TO / NEREYE

FLIGHT

OCUS

25 04 15

CRISIS

A STAR

UNITED 

VIP

BALAZS/GEORG
REC LOC-BR5RF1
UA212 JFK
NEW YORK NY
UA534 LAX

HNL/LC
15APR15/1945

5016 585918



*Need
Mediterranean Map*

(29)

TURKISH AIRLINES 
BOARDING PASS | BİNİŞ KARTI

NAME / ISIM: BALAZS/GEORGEHARVE

FROM / NEREDEN: NEW YORK

TO / NEREYE: ISTANBUL

FLIGHT UÇUŞ: 2504 15

CLASS SINIF: CIKIS

DATE TARİH: 15.04.15

TIME SAAT: 15:45

SEAT / KOLTUK: 463

13B

2357578563152/2

A STAR ALLIANCE MEMBER 

TURKISH AIRLINES 
BOARDING PASS | BİNİŞ KARTI

NAME / ISIM: BALAZS/GEORGEHARVE

FROM / NEREDEN: NEW YORK

TO / NEREYE: ISTANBUL

FLIGHT UÇUŞ: TK 0002 Y

CLASS SINIF: Y

DATE TARİH: 17APR18:50

TIME SAAT: 18:50

SEAT / KOLTUK: 36H

GROUP B

1/13 279 NM/

ET 2357578563151/3

UA * A STAR ALLIANCE MEMBER 

TURKISH AIRLINES 
BOARDING PASS | BİNİŞ KARTI

NAME / ISIM: BALAZS/GEORGEHARVE

FROM / NEREDEN: ISTANBUL

TO / NEREYE: JALAMAN

FLIGHT UÇUŞ: TK 2558 Y

CLASS SINIF: Y

DATE TARİH: 18APR17:05


TIME SAAT: 17:05


SEAT / KOLTUK: 10B

GROUP C

1/13 063 NM/

578563151/.

A STAR ALLIANCE MEMBER 

TURKISH AIRLINES 
BOARDING PASS | BİNİŞ KARTI

NAME / ISIM: BALAZS/GEORGEHARVE

FROM / NEREDEN: NEW YORK

TO / NEREYE: ISTANBUL

FLIGHT UÇUŞ: TK 0002 Y

CLASS SINIF: Y

DATE TARİH: 17APR18:50


TIME SAAT: 18:50

SEAT / KOLTUK: 19F

GROUP A

1/13 076 NM/

ET 2357578563152/1

UA * A STAR ALLIANCE MEMBER 

Kapoho NIST; Prot. Species Adv. WPRFMC

MidPoint 10/1/14 - 3/31/15

- FP Summit 11 steering meeting
- Publications First^{Am}MTN, Pacific Science ^{coauthors}
- Demographics + 3 others sub. center App
(First^{Am}MTN I, 2 coauthors)
- Pearl Harbor INITIATIVE
- CHINA/USA working Group
- 2 Grad. Committees
- STAJ keynote 1/14
- Parker oversee

Need to
send our
papers

TOMOKO
NARASAKI

NARATOMOZ@
gmail.com



ISTS 35 DALAMAN, Turkey

2015

31

ARRIVED SATURDAY SUNSET 4/18 VIA
ISTANBUL, JFK (overnight), LA, HNL.
Room 1360

ITZEL Sifuentes - ^{student} EVALUATOR
✓ V. COELHO 6288 SKULL DIMORPHISM

✓ P. AGUILAR CLAUSELL
6310 INNATE LUMINOSITY

JFK traveled
with

JOE
CARRIE
Florida

✓ M. J. Gutierrez Lince Marine Debris
6165 C.E.
CTF - TARA Henrichs See

JEN SWIGGS
- JEN@leatherback.org

4/19/2015 1030-12 noon East Asia - Yoshi
SUNDAY 13 people total

YONAT
Summer

OGASAWARA Women

FP Summit
TO
Jennifer
Honey

good Yoshi
TO

(1) Manchuria
Cheng - Sat tag - fishermen took of Scutes"

(2) ^{STRAND} ribcatcher
plastic threat

Need
J. Wang
STATS

Vendor table
NTOU
- La Benida
Luchis Art

Room
1360

Gwénaël Duclos
 Ecology and Vision Engineer

+33 (0)6 75 40 38 01
 gwenael.duclos@gmail.com

www.wipsea.com



ARCAS
www.arcasguatemala.com




Colum A. Muccio
 Administrative Director
 Cell.: 5704-2563

Tel/fax: (502)7830-1374 • (502)7830-4273
 E-mail: arcas@intinet.net.gt

Intl: Section 717, PO Box 52-7270, Miami, FL 33152-7270 USA
 Carretera Interamericana Km. 30, calle Hillary casa No.6, Villa Conchita, San Lucas Sac. Guatemala




EVERLASTING NATURE of ASIA



Satomi Kondo

Byobudani, Chichijima-aza, Ogasawara-mura,
 Tokyo, 100-2101, Japan
 Tel: +81-4998-2-2830 Fax: +81-4998-2-3258
 e-mail: kondo@bonin-ocean.net
 URL: <http://elna.or.jp>



1997
1998

Regina LUNA

Mediterranean Haplotype All OMA-13 (but 2) NEW TECHNIQUES SESSION I

Genetic Variability of green turtle

4/19/15
Sunday
PM

Genomic STRs show variability

STR =

RUPIN Academy
School of
ISRAEL Center for Marine Sciences

KPH
Summer

* YARON TICOK Hirsti
"The DNA / STR Haplotyping technique -
the more informative look at
sea turtle Population Genetics"

"Heteroplasmy" "important in generating
new Haplotypes"
STRs from elsewhere?

"DNA Never Lies"

CTF
Nuclear?
DNA?

CYPRESS - g.t. population status? Brendan

CONTACT?

UZI MOTRO

"Mediterranean A large CTF"

instead of Genetics

Berlin Center for Genomics in Biodiversity Research
work on non Model organisms

ILLUMINA Company
HiSeq2500

Sequencing technologies - the next Generation

"MAA... deduced from evolutionary...
All Sea turtles have same chromosomes 2N=56"

Room

Anna Stamatiou

Movements sent

14c Holland Park Road
London W14 8LZ
+44 20 7603 9013
+44 7900 493 437
anna@stamatiou.net



NEAR EAST UNIVERSITY
FACULTY OF ARCHITECTURE
DEPARTMENT OF LANDSCAPE ARCHITECTURE

sent photo

Assoc.Prof.Dr. Özge Özden Fuller
HEAD OF DEPARTMENT

NEAR EAST BOULEVARD, NICOSIA-TRNC www.neu.edu.tr
Phone: +90 392 223 64 64 /288 Mobile: +90 533 855 77 38
E-mail: ozge.fuller@neu.edu.tr, ozgezden77@yahoo.com

ozgefuller@gmail.com

M10
Medya ve Etkinlikler
Jane Akatay
0 533 640 11 62
jakatay@gmail.com

Noriko Oshima
Director of Revenue Management

**Mandarin Oriental
Tokyo**

2-1-1, Nihonbashi Muromachi
Chuo-ku, Tokyo 103-8328, Japan
Telephone +81(3)3270-8800
Direct Line +81(3)3270-8949
Facsimile +81(3)3270-8871
Email noshima@mohg.com
mandarinoriental.com



**MANDARIN ORIENTAL
TOKYO**

Satori Kordo

*Byobuden, Choshima, 100-0001
Tokyo 100-2101 Japan*

Tel: +81-4900-2280 Fax: +81-4900-2281

E-mail: kordo@byobuden.com

URL: <http://www.byobuden.com>

SUNDAY
4/19/2015
CAM/A
(CONTINUED)

See TOURS
web site

35

Genome for G.T. only of sea turtles
TOTAL Sequence length: 2,208,410,377

EAST ASIA List of Attendees - SUGANUMA
ogazawara need from MATSUZAWA

Silale VILACA - present 4/20 Hybrids

R Dinner - Brendan/Annette
Cynthia (Congo) + former student Cypress
with daughter Cypress

West Africa 4/20/2015 9:30 AM opening Ceremonies
Monday President

Francois
POISSON
Breakfast

YAKUP KASA

TRAPS "HEAL"

"Science is not enough" EU Rep.

send off
Semino
et al
TO ISTS
BOARD

Travel is a life-changing
experience - let the
sea turtles take you on
many journeys"



Natalie E. Wildermann

LicBiol, MSc
PhD Candidate
College of Marine and Environmental Sciences

T 07 4781 6940 | T (INT'L) +61 7 4781 6940
M 0422 314 062 | M (INT'L) +61 422 314 062
E natalie.wildermann@my.jcu.edu.au | w.jcu.edu.au
Townsville campus | Townsville QLD 4811 Australia
CRICOS Provider Code 00117J

Cairns
Singapore
Townsville



ARIADNA ARNAU

Marine Biologist
Master in Animal Biodiversity and Conservation
Divemaster

Phone: 0034 660 597 498
e-mail: ariadna.arnau@gmail.com

Catalina Vasquez-Carrillo
Biologist, Msc. Ecology and Conservation

University of Miami
Department of Biology

<http://coastalecology.bio.miami.edu>
cvasquez@bio.miami.edu
Mobile: (608)514-58333
1301 Memorial drive
Coral Gables, Florida, USA

ISTS35

Monday
4/20/2015

Saki welcome
Need - Charles welcome
EMAIL - FP welcome

37

Brian Weiss film

DALAMAN - GRAY/BLK SAND BEACH.

Turkey

1,500 km Mediterranean Coast

Turkish language?

Frederick

"Research & Conservation go hand in hand"

"Symbol of eternity" Turk
"Holy objects" infinity

100th ISTS

EURO-ASIAN

Sea Turtles are a symbol

Peter Pritchard -

1961 DALAMAN

Sybilie

Yakup

Richard Reina

Nick - 1984 MTN

MONTASH UNIVERSITY

climate change EDITORIAL

PATCH

Just north of Hawaii

Worst case

Scenarios - stable

(Model)
2015 FUNCTIONAL ECOLOGY

Pollan
Med. Terminals
closed

Jennifer Scholtz

Rise 47 - 80 cm

Richard
Feina

Terradottom - Fitness
Incubation

39

sea - rise

4/20/15
Monday

indirect - beddie
Sea Grass beds

Changes Ocean Currents

Tiger sharks farther south

CO₂ - Ph
Resilience & Adaptation

105 mya

Climate changed

50 my

many times

20 my

but sea turtles are

present

still around

2 differences

- ① - stresses - fishery impacts etc
- ② - Rate of change 10-2x greater

- ISSUES
- ① Fishery impacts
 - ② Direct TAKE
 - ③ Coast development
 - ④ Pollution & Pathogens
 - ⑤ - ?

Female Biased is relatively common, Multiple times
MALE BIAS. Season

"CAPITAL BREEDERS" 2:1 example

Migrate depending on food AVAILABILITY

Monday
4/20/2015

" ITC Report ELASTICITY
Changes in Location "

(41)

Richard
Beina keynote

What do we need to do?

Read Climate Change & Marine Turtles

HAS RATE really never been this fast?
Meteor Strike?

Cong Greenlin time > send Van Houten
Mick Guinea Nest in Winter
10th year Linked PNG to Australia
Seychelles
Year Round

P.M. presentations - Kimberly

Mick Guinea Chair - Euleutheria morphology

Posters - late afternoon

Evening - Turkish Childrens presentations
FOLK DANCE

4/21/15 Breakfast w Tomoko - Scotland PostDoc
(Asuka & Carl Meyer)

Session

9:30 AM

BOJAN LAZAR

ADRIATIC

= 70,000 turtles

1020 sightings

1046 mostly C.c.

Need to load X2 + watch cell + flashite
 IMPORTANT POINTS TO mention
 - Thank people of Turkey, YATUP
 at Thank Coauthors ^{50 in the 52 yr} wife Linda ^{5 years} College ⁵⁷⁰⁰
 at Thanks for Comm Good News story
 + This coming July (IUCN)

"All sea turtles are threatened
 Endangered - NARA Hawaii"

* Good News story - TITLE Phoenix
 47 years 42 pictures every 400 yrs

* Relatively DATALESS presentation

* DATA supporting my presentation contained
 not in Journals Publications & Reports
 least 100 X AN observed ^{chronicles} records of change

* 42 SNAPSHOT Photos - one for each year
 * "Fields OF TURTLES"

* Greatest Challenge of our Time
 Dichotomy Design very well vs

(Heron Is.)
 (Ascension) ^{Truly Endangered}
 (Tortugas)
 (OGASAWARA) ^{Decline toward}
 (Florida) ^{Restoration}
 (Ache Carr)

42 = 214 sec
 each per photo.

* 20-25 year maturity
 + organs contained lowest for
 any sea turtle population
 My comments R

T
 4/2
 1030
 need
 with
 + w
 MOROT
 peck
 Sc
 deca
 follow
 peck
 on d
 Capt.
 first

Tuesday need - woman
4/21/2015 HONDURAS | CHINA/USA INVITE LIST (43)
STEVE DUNBAR - Photo ID SOFTWARE
"Track Through time individuals"
- Coffee -

1030AM | ISHIHARA presentation - Ponds nets
need
John Swang
+ MURATO
1045 GABON - E. Africa
16-41 KDC, annually

peeled scutes decay
TUNA Gillnet PAKISTAN - Pelagic
1000km^{coast} India to IRAN
How do they untangle,
ALIKI

Follow the pecking order
Capt. First
"Follow Pecking order" in interviewing fishers
"Compensation"
"Listen to the Fishers"

YANIV Small fishers
ISRAEL LEVANT COAST

FLORIDAMEMORY.COM

200km Shoreline
73 TRAWLERS
107 210M
10 Pelagic purse seiners

EAST A
PEELED
SCUTES

4/21/15 [BAO] 250-year Reconstruction
TUESDAY rainfall + CLIMATE change
Spring Tides - effect on west Temp cooling

245 p/hen McKay - VANUATU 84 ISLANDS
"Ain" "ONE SMALL BAG" Theatre Co. cyclones
"Ramble" small print CAT 5 storm recent
PILAR TOMILLO GLOBAL effects on leather bags HATCHLING

The Fields ARE
Full of TURTLES
ROSALIND BOWN
BOWN

21 APRIL 2015 TUESDAY
600 PM - BOARD MEETING
1 XM CAURIOS MEETING ROOM

- Voted Code - WAY FORWARD
1 HR 40 MIN Coyne Resolution

"Student Committee" - ETZEL
① Feedback 106 LAST year; 50 this year
23 evaluators this year

② MIXED
③ JOB BOARD WORKSHOP? ALEX 59 Rooms
95K expended
165 APPROVED TRAVEL last cal. 89K
Grants est. 85K bottom line
162 Applicants

YAKU
MT
LISTS
- Mem
- PAST
- Life

(65
Ten

(18

IT
Me

4/21/2015 BoD Meeting, TUESDAY NIGHT (45)

Andrea - JUDGE AWARDS - presentations/posters

YAKUP -
MTSG?

INGRID

& Alex GAOS need pictures

LISTSERVES BoD

Web page

- Members

- PAST Presidents

- Lifetime Achievement

YAKUP =
"Raising the Mission of
the Society to the Local Level"

540 Registered

(650)

Terry Meyer - Treasurer's Report

5 years = +41,306

3 negatives 2 positives 479K SID, N.O.
(18.7K India, 16.9K ^{MATCOO}, 133.7 Baltimore) 162.9

- "PATH"

OBLIGATION TO MEMBERSHIP

IT

Membership Committee 12:10 am

Wednesday
4/22/15 Speed CHAT 4:30 pm

- M Miguel
• DRONE Dept
• Kathleen Sealey-Sullivan Biol. UM
• ksealey@gmail.com
• MIGUEL VARELA DASILVA@GMAIL.COM - DROVES
• +2 males ^{gift} = Candy + white shirt gift
- needed

4/22/15
Wed. My TALK 10:30 AM

530 pm

4/22/15 INCN MTSG
Wednesday General Meeting
Seminar - June 2015 Assessment

"Terms of Reference" Member & Co-chairs
HAs nothing to with Conflict of interest

Draft Conflict of Interest Clause.

Rule of Consult w/ Regional Vice Chair -
Members w/ Co-Chair - on any position
issue of the Region.

4/22 AUCTION NIGHT - Leather puppet #200
~100 ORANGE ALOHA SHIRT - TO MIKE BRISSETTE

4/23/2015 1000 AM BUS TO Beach/RetHAB Center
THURSDAY Return ~ 3:15 pm

PLENARY SESSION - T Resumes
Travel Grant ALEX GAOS
89K Room &/or meals

174 voted
\$9000 Auction collected Lifetime Membership

ISTS 30
ISTS 36 first in S. America
LIMA 9M people MARCET

100 LIMA - LV -
2016 2017 2018
HK HAINAN



OPR - PAID DOWN way



Seth T. Sykora-Bodie
Special Assistant to the Director (Sea Grant Fellow)
Office of Protected Resources

National Oceanic & Atmospheric Administration
National Marine Fisheries Service
1305 East West Highway
Silver Spring, Maryland 20910



Tel: (301) 427-8409
Cell: (724) 421-6005
Seth.Sykora.Bodie@noaa.gov

over for
Mike BRISSETTE
phonet

Send photo to send

4/23/15 ^{Send} shroud of
Thursday TUSIN

volunteered 9/11 HAINAN

Met on
Bus
Returning Sat
from
Release
BYLAN

SIMONA SOLOPERTO

SIMONASOLOPERTO@GMAIL.COM

ITALY

Lived
w/ his
family



**CARNIFAST[®]
PLUS**

RE.
UNIV.
MADRID
SIA

Boxes
BPMuseum
Woman &
Professor
Will contact me

CTF DAVE -

BRIAN SHAM B LIN -

RE SLP

TEST to see if which OTS
ARE FATIGUE of off skin F2
CC ^{NO} Carolina

4/23/15
Thursday

72



George,

Here is my home address :

2-10-16-306 Kita-Aoyama,
Minato-ku, Tokyo 107-0061
JAPAN

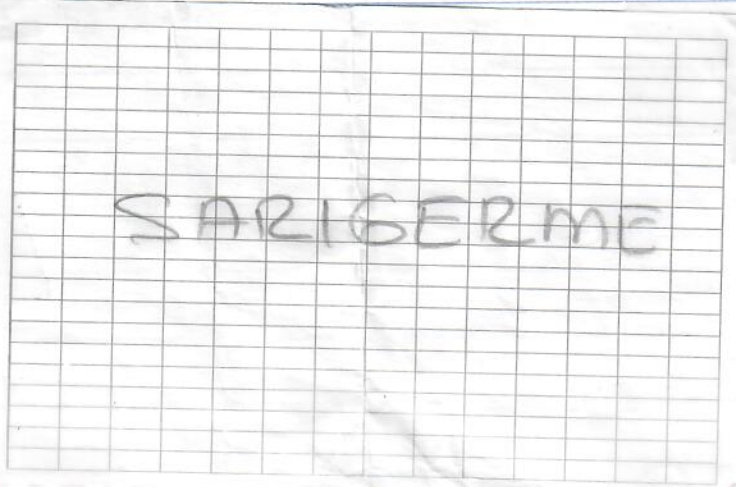
email is the same as before:
norigame@yahoo.com

Phone/Whetsepp :
+81-80-3257-8392

Hilton Dalaman Sarigerme Resort & Spa
Sangerme Turizm Merkezi PK.11 Ortaca Muğla, TURKEY
P:+90 252 286 86 86 F:+90 252 286 86 56 Call Center: 444 1981
E-mail: info.dalaman@hilton.com
www.hiltondalaman.com

Nori

OSHIMA



TOWN
nearest
HILTON

4/24/15
FRIDAY

TOUR BUS + (51)
DALYAN River Boat - to
Beach + to MUD BATH.
"RAKI" - TURKISH LIQUOR

Need
PHOTO
BAND
ON

M
Sule DEMIRAG sule.demirag@hotmail.com

Tony (Michel) NALOVIC bigsharkchum@yahoo.com

90 1107
Makbuza vizegin Adı, Soyadı: ONIL ONIL
Adı
Vergi D Numarı

12
FRIDAY
4/24/2015

Maryam Mohammadi - from Iran, Kish Island

+98 - 9123587220 (you can use it in viber and what's app)

mary3526@yahoo.com

Carmen. mifsud @
mepa.org.mt
MALTA.



Birgit Braun

Geschäftsführendes Vorstandsmitglied

Aktionsgemeinschaft Artenschutz (AGA) e.V.

Rathausgasse, 5
D-70825 Korntal-Münchingen
Tel: +49-(0)7150-922210 Fax -922211

e-mail: birgit.braun@aga-artenschutz.de
internet: www.aga-artenschutz.de

SPONSOR
OF
MARYAM

GİDER MAKBUZU

Türk Lirası

Makbuz No.

₺ 90 USD ₺

Tarih 19.04.2015

ILAN LAGOON
George H. Balanus (Pamukkale)

Yukarıda yazılı ₺ Doksan (90) ₺

USD TL

KR. aldım.

Makbuzu verenin Adı, Soyadı : ONUR CANDAN

Adresi :

Vergi D. No.su :

35TH ANNUAL SYMPOSIUM ON
SEA TURTLE
BIOLOGY AND CONSERVATION
DALAMAN-MUGLA-TURKIYE 18-24 APRIL 2015

262

It's all yours with the United MileagePlus® Explorer Card

- Free checked bag*
- Priority boarding privileges
- Two one-time use United Club® passes
- Double miles on United tickets
- Use miles to book any seat, any time

For additional details and to apply, please visit [United.com/mileageplus](#)

*FREE checked bag: For use on United flights only. Not valid for award travel. See [United.com](#) for details. MileagePlus Explorer Card is a registered trademark of United MileagePlus. © 2015 United MileagePlus. All rights reserved. United MileagePlus Explorer Card is a registered trademark of United MileagePlus. All rights reserved. United MileagePlus Explorer Card is a registered trademark of United MileagePlus. All rights reserved.

MEMBER



0235529794
 TK 529794 1/18
 BALAZS
 SPV48H 25APR/DLM/

TO HNL-HONOLULU

HNL

UA1232 25A

VIA

LAX

TK0009 25A

VIA

IST

TK 2553 25A

4/25/15 Saturday
 Depart (Dahman Hotel)
 630am bus to
 Airport. 825am Flight
 TO ISTANBUL.
 1245pm Istanbul to LA 3hr late
 departure - ARRIVE LA 600pm
 Rebooked UA 641 to HNL
 for 840am 8/26/15
 Concourse Hotel -
 (Hyatt) Rm 318

4/26/15 UA641
 SUNDAY 840AM
 ARRIVE HNL 1115AM.

UNITED

TSA PRE

** PREMIER **
 ** ACCESS **

BR5RF1 4H
 UA 641 B5E7D5

BALAZS/GEORGEHARVEY

UA-***678 PREMIER SILVER STAR ALLIANCE SILVER

LOS ANGELES TO HONOLULU

319

UA641

GATE

BOARD TIME

SEAT

LAX-HNL

74

8:00A

4H

BOARDING
 GROUP

SUN APRIL 26 2015

GATE MAY CHANGE

DEPARTS: 8:40 AM

AISLE

ARRIVES: 11:16 AM

FIRST

1

CONFIRMATION: BR5RF1

TICKET: 235 7578563152

A STAR ALLIANCE

55

need



CLS
COLLECTE LOCALISATION SATELLITES

Dr. Philippe GASPARD

Scientific Coordinator
Space Oceanography Division

E-mail: pgaspar@cls.fr

Tel +33 561 394 781 • Mobile +33 688 382 030 • Fax +33 561 393 782

OVER



ISRAEL NATURE AND PARKS AUTHORITY

Yaniv Levy

Sea turtle project coordinator
Director of Sea turtle rescue center

Mevoot Yam
Michmoret 40297, Israel
Tel/Fax: +972-9-8669173
Mobile: +972-52-7512220
E-mail: yaniv@npa.org.il

<http://old.parks.org.il/sea.php>
<http://www.facebook.com/IsraelSeaTurtleRescueCenter>
(ISRAEL NATURE AND NATIONAL PARKS CONSERVATION AUTHORITY)



JEN@Foundwood
Working.com

TRAVEL IS A Life Changing Experience

MALTA ^{PO} Country

GERMAN

IRAN ⁵⁰⁰ attending

KAZAKHSTAN ^{1st}

ITALY

"The Great Migration"

HAWAIIAN ISLANDS

SEA TURTLE

MARINE

"LIST SERVER"

THE WORLD

and HERE

PEOPLE ARE

DIVERSE

PO = TALK

LAURA SASKI
FRANK PALADINO

speed chat meet
5MIN

IDLIB,
SYRIA

MINGLE

LOS ANGELES TO HONOLULU

UA641

BR5RF1

57

NIGHT
OF
4/25/15

THE CONCOURSE
HOTEL AT LOS ANGELES AIRPORT

A Hyatt® Affiliated Hotel

MTP Group

- dissertation
- DRAFT complete
- FP Summit

teleconly

speed chat meet

china/usa report
to FRANK PALADINO

Rm 318

CONCOURSE HOTEL
TEL. 1-424-702-1234

37 6006
630 -700
6 AM = 930
9 PM = 1000
930

www.concoursehotellax.hyatt.com



BR5RF1 33B 121
UA 534

Premier Access



BALAZS/GEORGEHARVEY

UA-****678, Premier Silver, Star Alliance Silver

Honolulu to Los Angeles

UA 534 GATE

~~7~~

Wednesday, April 15, 2015

Gate May Change

MS

BOARDING BEGINS

8:05 PM

Boarding ends: 8:30 PM
Flight departs: 8:45 PM
Flight arrives: 4:59 AM

SEAT

33B

Aisle
Economy

BOARDING GROUP
2

Added to Upgrade Standby List

A STAR ALLIANCE MEMBER

Confirmation: BR5RF1
Ticket: 23575785631510

BR5RF1 32D 63
UA 212

Premier Access



BALAZS/GEORGEHARVEY

UA-****678, Premier Silver, Star Alliance Silver

Los Angeles to New York-Kennedy

UA 212 GATE

Not Yet Assigned

LAX-JFK

Thursday, April 16, 2015

BOARDING BEGINS

5:15 AM

Boarding ends: 5:45 AM
Flight departs: 6:00 AM
Flight arrives: 2:28 PM

SEAT

32D

Aisle
Economy

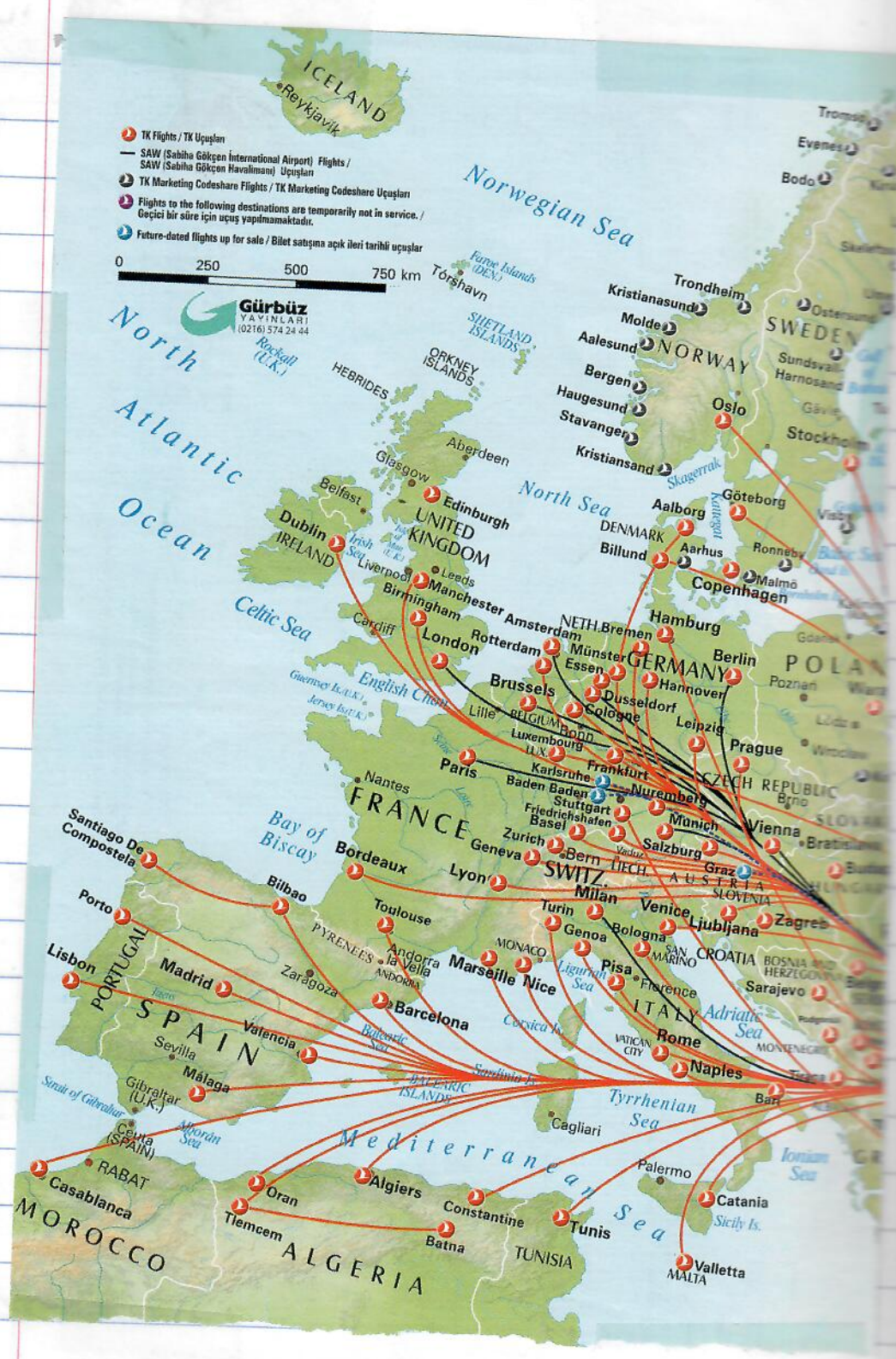
BOARDING GROUP
2

A STAR ALLIANCE MEMBER

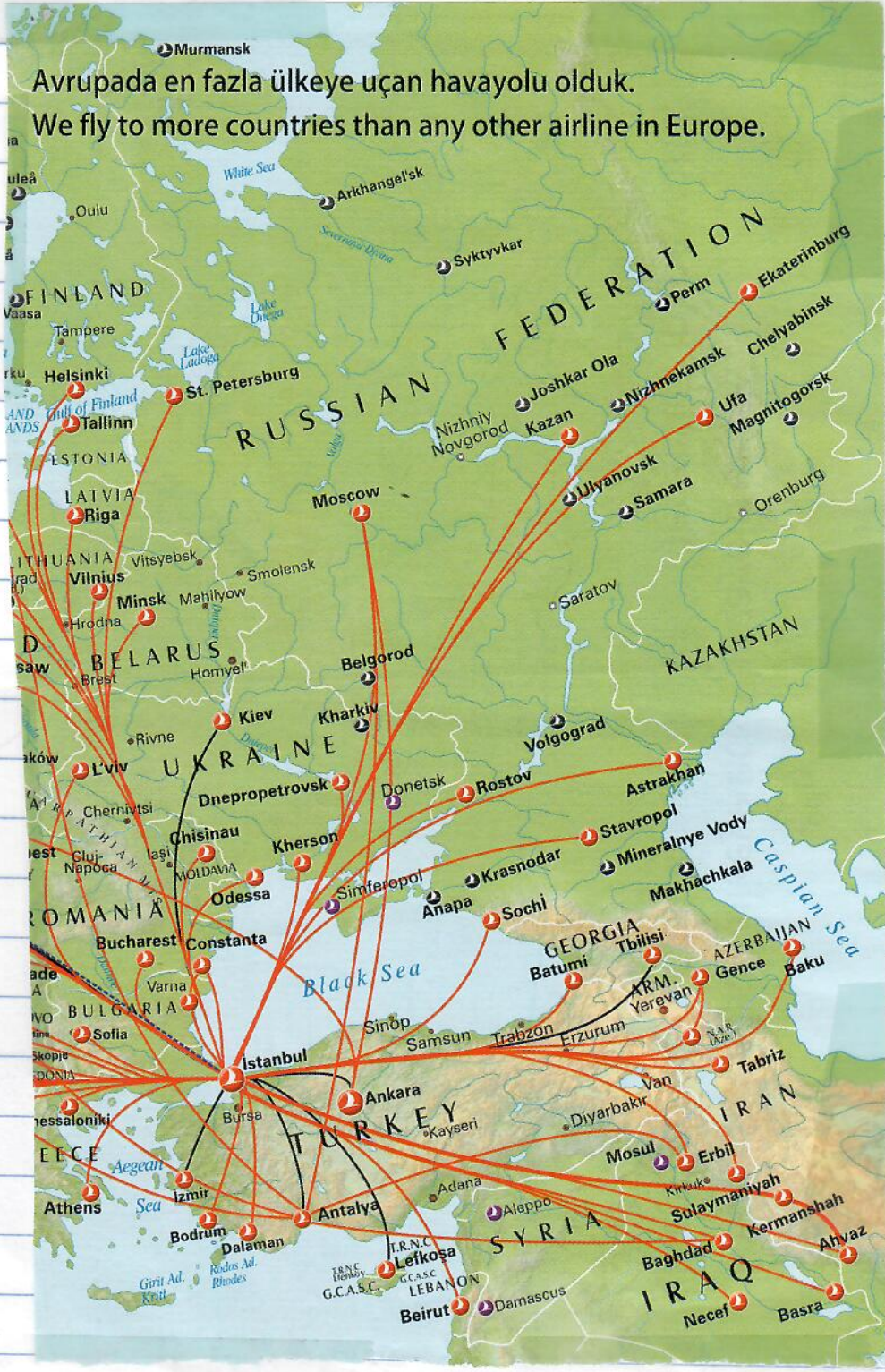
Confirmation: BR5RF1
Ticket: 23575785631510

59

PC



Avrupada en fazla ülkeye uçan havayolu olduk.
We fly to more countries than any other airline in Europe.



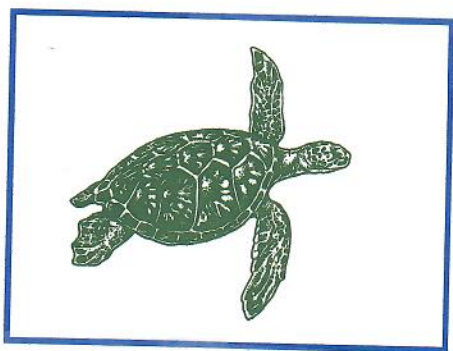
Hi George,

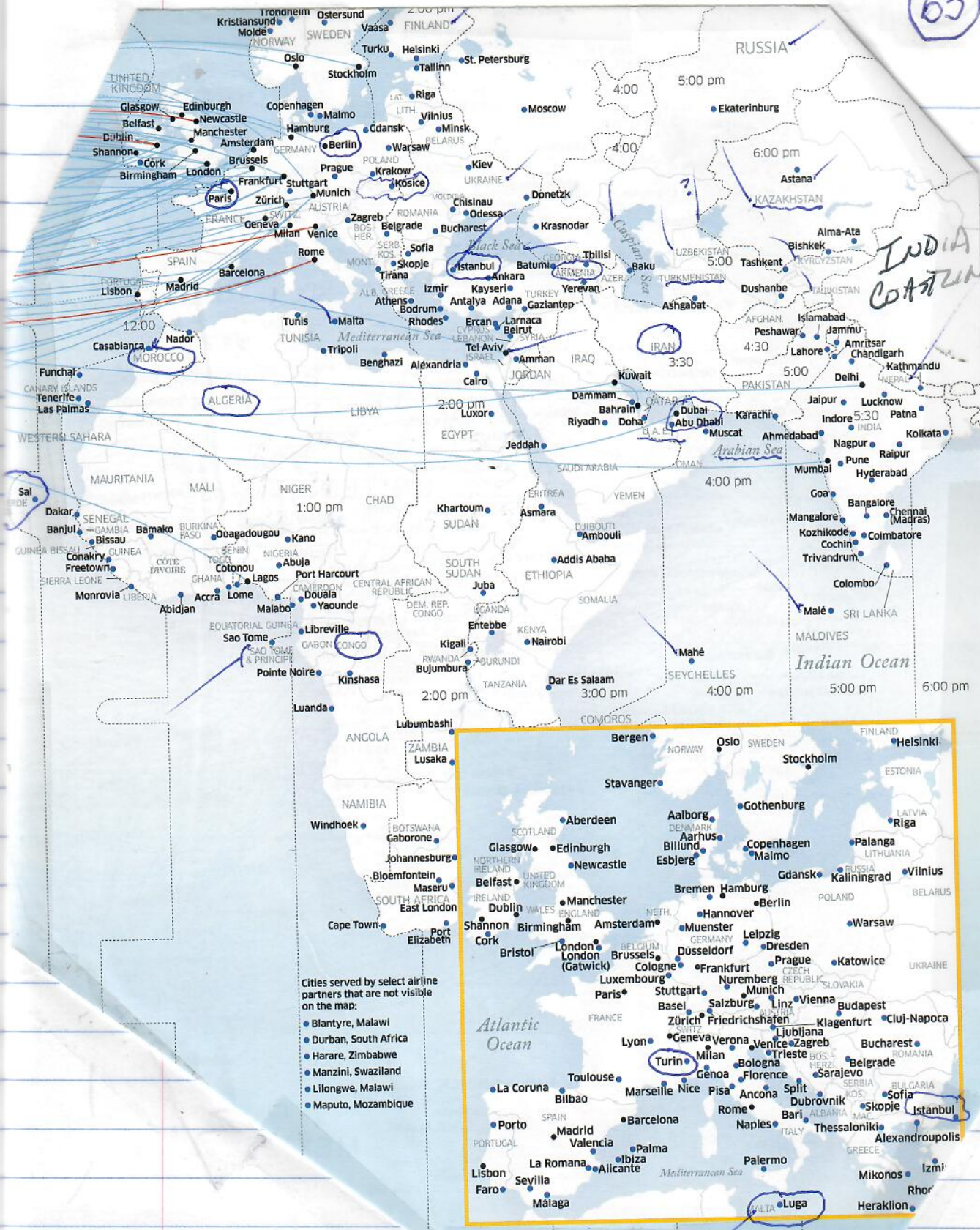
5/2015

I recently found out that you had made a contribution to my being able to attend the sea turtle symposium in Turkey. I herewith want to thank you for helping make this possible. It was great seeing you again — and several others of the "old timers." What I saw at the meeting was very encouraging; all these young people being interested in sea turtle conservation! How we have grown from that small group that started in the 70's! Hope you are well.
Heidi

H. A. Reichart
348 Hickory Ln.
San Rafael, CA 94903-2436

26 MAY 2015 PM





Cities served by select airline partners that are not visible on the map:

- Blantyre, Malawi
- Durban, South Africa
- Harare, Zimbabwe
- Manzini, Swaziland
- Lilongwe, Malawi
- Maputo, Mozambique

ALOHA

People of
Hawaii meet S. H.
of ESA.

THANK PEOPLE OF YAKUP KASA
~~THANK PEOPLE OF YAKUP KASA~~

THANK WIFE LINDA MARRIED 52 YRS
celebrating 50 YR HANAU

THANK THIS YOUNG MY PHD STUDENT
HAKU CONNIVING working together
PAST 5 YEARS

TITLE
Good news story

PRESENTATION REASSENTS MY
PROF. Agency worked for 32 yr
42 photos

REDUCTIVE DATA LOSS
AT LEAST 100 JOURNAL

Read 3 POINTS of
ABSTRACT Pubc.

Green Turtle Good News: Florida
ASCENSION
HETERO
BIR
TEATUGERO, OGHSAWARRA

FLASHLIGHT TO DAY
PROFESSIONAL VIEWS AND NOT NECESSARILY THOSE OF
MY NOAA AGENCY WHERE I'VE WORKED FOR
4
RESPONSIBLE COMMUNITY

35TH ANNUAL SYMPOSIUM ON **SEA TURTLE** BIOLOGY AND CONSERVATION

ALOHA

Abstract ID: 5903 Type: Oral Subject: Conservation, Management and Policy Country: United States
Submitted By: George H. Balazs

PHOENIX RISING FROM THE ASHES: 42-YEAR HISTORY OF CHANGING ECOLOGY AND RESTORATION OF THE HAWAIIAN GREEN TURTLE

Humpback
WHALES

George H. Balazs¹, Linda R. Balazs² and Connie Ka-yan Ng³

¹IUCN Marine Turtle Specialist Group, Oceania Region, 992 Awaawaanoa Place, Honolulu, Hawaii 96825
² 992 Awaawaanoa Place, Honolulu, Hawaii 96825
³ City University of Hong Kong, Tat Chee Avenue, Kowloon, Hong Kong Special Administrative Region, China

In 2012 the genetically discrete and geographically remote Hawaiian green turtle population was downlisted within IUCN's Red List to the category of Least Concern following a comprehensive assessment by the IUCN Marine Turtle Specialist Group (see) For the past 40 years Hawaii's green turtles have exhibited new behaviors and adaptations along with their increasing numbers and concomitant expansion into new habitats. These favorable changes have included: significant increases in terrestrial basking; nesting in the Main Hawaiian Islands; formation of underwater cleaning stations; daytime foraging in shallow water near shore; close co-existence with and tolerance of people; feeding on new types of vegetation; and the use of streams and rivers for underwater resting. Even more beneficial changes and acclimation can be expected in the future, including shifts in nesting to adapt to climate change and sea level rise, as sea turtles have successfully done with resiliency for millions of years. Several other sea turtle populations besides the Hawaii stock are also showing remarkable restoration from over-exploitation caused by efficient fishing technologies and human encroachment into previously pristine turtle habitats. At the same time there are many sea turtle stocks at seriously low levels that continue to decline. This dichotomy in sea turtle conservation status is one of the great challenges of our time in balancing appropriate protective measures along with limited sustainable use, where such harvest and other forms of human utilization might be legally allowable and advantageous to both turtles and people. The natural direction toward which we should be moving regarding sea turtle conservation, as expressed by the Sea Turtle Association of Japan, is "to bring back rich and plentiful nature that allows and tolerates a diversity of values and world views." In light of their 40-year rise to abundance, Hawaiian green turtles constitute a unique experimental model to comprehensively understand the dynamics of a recovering sea turtle population. In addition conservation practices in Hawaii, founded upon four decades of research results, can serve as a real-life learning ground for people in other regions striving to save and sustain their own charismatic and culturally important sea turtle resources. Successful conservation programs that endure are best built with local communities as their foundation. National legislation and international conventions, based on sound ecological principles, clearly also have importance. However, strategies for conservation are made robust and equitable when they integrate cultural and traditional components forged at the local level by the very people closest to the turtles and their environment.

*THE RE THOSE THAT WORRY I DON'T

1

2

3

Thousands remember the fallen in Gallipoli

HURRIYET DAILY NEWS
4/25-26/2015

Ordinary people, as well as official dignitaries, commemorate the dead at the Battle of Gallipoli

ÇANAĞKALE

Thousands of people marked the 100th anniversary of the battle of Gallipoli, one of the bloodiest fights of World War I, at an official ceremony hosted by Turkey in Çanağkale on April 24.

The Battle of Gallipoli played a crucial role in forming the nation-

al consciousness of modern Turkey, Australia and New Zealand.

"We paid a high price for the Gelibolu [Gallipoli] victory. Yet we should not forget that we owe our current independent state to that spirit and perseverance that we showed," President Recep Tayyip Erdoğan said in his speech at the memorial.

GALLIPOLI, continued on page 03

REUTERS photo



Britain's Prince Charles salutes next to Turkey's President Erdoğan (R) as they attend a ceremony to mark the 100th anniversary of the Battle of Gallipoli.

Ceremonies pay tribute to Armenian 1915 victims

YEREVAN / ISTANBUL

Commemorations were held April 24 for the Armenian victims of the Ottoman massacres of 1915 in Istanbul and Yerevan.

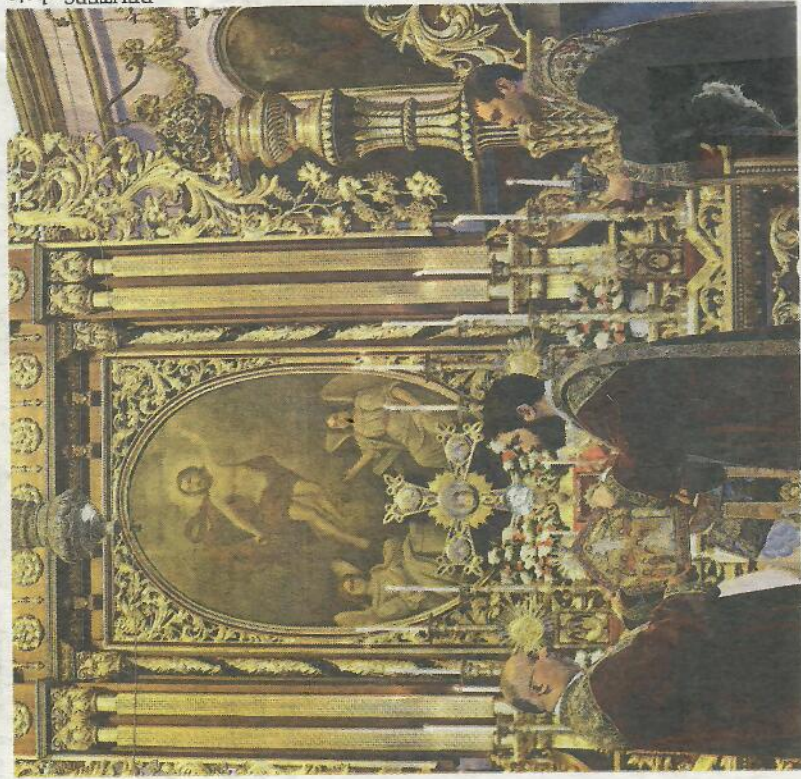
EU Minister Volkan Bozkır became the highest-ranking Turkish official to attend a memorial in the country, participating in a ceremony at the Armenian Patriarchate in Istanbul. President Recep Tayyip Erdoğan sent a message to the ceremony, in which he "respectfully commemorated all the Ottoman Armenians who lost their lives amid the conditions of World War I."

In Yerevan, Russian President Vladimir Putin spoke at the Tsitsernakaberd Genocide Memorial Complex, noting that "we mourn together with the Armenian people."

French President François Hollande also attended the memorial, applauding Turkey for taking steps on the issue.

Stories on page 03

REUTERS photo



Priests hold a mass at the Armenian Patriarchate at Mother Mary Church in Istanbul as part of events to commemorate the victims of the 1915 killings.

Kazakh-Turkish brotherhood crowned with new mosque

8/17/15 www.DailySabah.com

financed by donations of philanthropists and undertaken by the TDV. The university features seven faculties and one vocational school, and currently educates 14,000 students with its 880 facility members and staff.

Built by the Turkish Religious Foundation in Turkistan, Kazakhstan, the Khoja Akhmet Yassawi mosque opened its doors for prayers today. The mosque has a capacity of 3,000 people and carries traces of Central Asian and Seljuk architecture

» OPENING for prayers today is the mosque and külliye (a social complex) that was built by the Turkish Religious Foundation (TDV) in Turkistan, Kazakhstan in the name of Khoja Akhmet Yassawi, who played an important role in spreading Islam from Kazakhstan to Anatolia. President Recep Tayyip Erdoğan is already in Kazakhstan for an official visit and will attend the opening ceremony of the mosque with his counterpart, Nursultan Nazarbayev.

Scientific and Cultural Organization (UNESCO) in 2003, the tomb of Khoja Akhmet Yassawi is now home to a mosque and külliye, the foundations of which were laid on Oct. 16, 2009. The mosque cost TDV \$10,461,000 and has a capacity of 3,000 people. The house of prayer, which is a symbol of Turk-Kazakh friendship, has the features of classical Kazakh architecture, however, the interior of the buildings is decorated in a style that emphasizes good relations between the two countries. The külliye and the mosque carry traces of the architecture of Central Asia and the Seljuks, and feature a library, a soup kitchen, multi-purpose halls, a cafeteria, dining halls, rooms for imams and muezziins, classrooms, a morgue and many other service halls. Moreover, the foundation of another mosque, which will be built on the campus of Khoja Akhmet Yassawi International Kazakh-Turkish University, was laid on the same day. The construction will be

Mazhar Bilgin, the vice president of TDV's board of trustees, said that the foundation was among the first non-governmental organizations that visited Kazakhstan after they declared their independence. Stressing that the TDV places great importance on mosques, which are needed by Muslims, and have been neglected for a long time, he said they have restored the Mıcurin, Tolgar, Nikolayevka and Almatı Central mosques in Kazakhstan. From 1996 to 2014, the foundation provided \$2.8 mil-

lion in financial aid to the education of students from the Faculty of Theology at the University of Foreign Languages and Business Career in Almaty from 2006 to 2014. Moreover, 36 Kazakh students - including 26 high school students - eight undergraduates and two graduate students - are being educated in Turkey thanks to TDV scholarships, while 20 students from the University of Foreign Languages and Business Career are continuing their undergraduate studies at Sakarya University. Bilgin said the foundation has initiated many projects, and highlighted that new projects are on the way. "The TDV, which undertakes important projects for religious services and education, as well as social and charitable events in Kazakhstan, finished the construction of the mosque, located near the tomb of the great Turkic poet and Sufi mystic, Khoja Akhmet Yassawi," he said.

Listed as a world cultural heritage by the United Nations Educational,

The foundation has brought more than 3,000 students to Turkey to complete their education, with most being imam-hatip and theology students. The TDV has 16 schools in 10 countries with 2,954 students, as well as 4,389 graduates.

ISTANBUL / DAILY SABAH WITH AA

LILY VENIZELOS

Lily Venizelos became aware of the poor state of sea turtle nesting beaches on Zakynthos, Greece, and began to address it. A few years later she set up MEDASSET in the UK and Greece, funded primarily by herself since 1988. The creation of the Marine Park in Zakynthos was a direct result of Lily's early efforts, together with others. More recently, threats to nesting beaches along Kyparissia Bay, Peloponnese, have been highlighted. She gradually included the whole of the Mediterranean. Lily has been vocal presence at the annual meeting of the signatories to the Bern Convention, with nations of the Mediterranean rim being called to account for their shortcomings and obligations to protect sea turtles. Through MEDASSET, she has fearlessly taken on her home country of Greece, as well as Turkey and Cyprus, ignoring the attacks on her reputation and motives. Lily has involved other national and international organizations (WWF, the MAVA Foundation, British Chelonia Group) in MEDASSET-led research and campaigns. MEDASSET'S work includes: Sardinia, Italy, Lebanon, and Albania. Her educators' pack for primary school teachers – MEDITERRANEAN: A SOURCE OF LIFE is circulated in Greek, English, Turkish and Arabic languages. Other activities include: beach clean-ups in 44 locations in Greece involving 12,084 volunteers, removing 81.7 tons of debris and dozens of school visits by the prizewinning turtle character: "Niretta the Caretta". Her passion and enthusiasm have brought recognition at every level of the sea turtle community and she has built partnerships and cultivated opportunities for cooperation.

The committee would like to unanimously recommend the 2015 Lifetime Achievement Award presented to Venizelos.

Lifetime Achievement Award

HENK REICHART

Henri "Henk" Reichart is a passionate conservationist who has devoted his life and professional career to sea turtles. After he obtained a Master's in Wildlife Biology from Cal Berkeley, he drove his family 4,000 miles to help build a wildlife conservation program in the newly established system of Nature Reserves and National Parks in Suriname. He became Director of The Foundation for Nature Conservation where he played a pivotal role in creating local institutional capacity for conservation. Henk helped write management plans for all of the country's protected areas, including Wia-Wia Reserve and the Galibi Reserve that encompassed the nesting beaches for green, leatherback and olive ridley turtles. Henk's research discovered the implications of temperature dependent sex determination and he implemented in situ relocation, techniques that have become standard for most nesting beach conservation programs. In his research program, Henk collaborated with leading and aspiring scientists, inspiring many to pursue careers in sea turtle research and conservation. Henk also pioneered ecotourism in Suriname, working with communities to build ecologically friendly lodges and to create a source of income for residents. He drew attention to the high sea turtle bycatch from the growing shrimp trawl fisheries along the Guyana shield and promoted the use of TEDs. He was knighted into the Order of the Golden Arch in 1994 in The Hague, Netherlands. He has touched many lives, enabled several generations of international sea turtle biologists and conservationists, and is revered in Suriname as a conservation hero.

The committee would like to unanimously recommend the 2015 Lifetime Achievement Award be presented to Henk Reichart.

BRIAN STACY / Keynote
NEOPLASTIC

NO
SATISFA

SUMMARY

This year the ISTS Awards Committee received four nominations for Lifetime Achievement Awards (LTA) and none for Champions Award or the Ed Drake Award for Vision. In a telephone conference call on March 10th, 2015, we discussed the four nominations and the appropriateness of each. Participants in the conference were Jim Spotts, Dave Hagley, Brad Naffill and Yakup Kaska. Yakup Kaska provided his input via previous emails. The Board did not connect with the call. Yakup Kaska provided his input via previous emails. The Board did not connect with the call.

1930 1950 1980

1990 2000 2010

CITF

Theatre of the Sea - head start

"Gloom, Doom & The perseverant green turtle"

Increase Y AXIS
IS FP / important
healthy quest TO ASK

not preventing recovery but not helping

FP not going away, neither are we

Humane & compassionate treatment.
Biosecurity

1.5 years up and out Turtle Hospital

"Don't understand what we don't know"

4/10

NO SATISFACTION

One of most interesting wildlife disease
Great Discovering bigger Questions

Management options?
"Culling" severely affected
Lethal Management intervention
Let nature take its course

CHARISMATIC & Attached to
17% success rate > 400 days

rehab if genetic factors - doesn't make sense
to let breed
"VACCINATION"
"A Long Game"

TW 80-20 RULE

~~hypothesis~~ MIAO
JEN "LOSE WT
Contribute TO progression"

OKADAIC ACID

Need Yvette Anderson

Chemicals that suppress

BIOTOXINS - stopper
Military H1 & FL

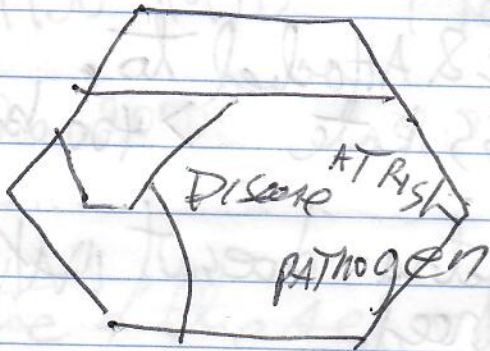
WARMER water - Behavior

ABSTRACT Speakers

DAN WALSH

"Disease Ecology"
Send my DIAGRAM -

6/11/2015
Thursday



Disease
Discovery

MANAGEMENT
ACTION

EXPLORATION

Step 1 Sensing → Recognition - observation

Step 2 INVESTIGATION STAGE

Step 3 Intervention MANAGEMENT

Density Dependent vs Frequency Dependent

often remain in initial explor. stage

Multiple ^{more from null} working hypotheses

CWD transmissible spongiform

SOIL vs. water

POLYMICROBIAL DISEASE

Big Abundant Respr

used
SALLY
BEHNE

6/11/2015
THURSDAY

Caribbean Island = Network
Networking

70,000
Big Horn Sheep
NOT ESA

Carlos Diez → DRNA
FP MT Caribbean
440pm 18 years Culebra

Williams et al. ^{most} complete

22% BONAIR
T&C

ORTIZ-RIVERA et al. 2002 STAMPA

840 268

32900 FP 1985-present

PRESE-LOGO ART

BLANCO

Puerto Rico
SITE LISTING

used
SALLY
BEAVERS

PATRICIO et al. 2012

NO EFFECT

Growth rates 6 cm/yr
Survival ?

1997 → Melbourne nest of
tagged

FP Not Related
TAG

Jessica
JACOBS
BRAD
STAC

FP Summit
Day 2
2900AM Wow Room
June 12 2015

Friday Allen FOLEY
NW Atlantic

"in water"
go out and
capture turtles in
the water.

Standings 1980

Allen
Expression of disease
BIASES of data

1981-
1985
198

positive impacts

16 hours to drive FL coastline. 30 participants

12,000gt 1980-2014

22.190 FP

"EXPLODING"

BOWARD County - NO FP in stranding
no indication of FP N. of 29° barrier Broken

Bermuda - 2007 1 FP recaptured from previous

TEXAS 3.190 FP

TRIAD
for epidemiology
LEW

MAUI -

"GTFP"

Landmark / HISTORIC

Indian River Coast 250km

7 DATA Sets - divisible into 2 groups - shallow inshore
current different offshore

"SAGA of the Sea Turtle" Blackie CRUZ

1910-1960 Keys WANTS - 1913 + late 1800s

2PM

need
GB
MC
SH
TU
S

Mosquito
Nothing through 1981

Need MTN low 2
in 1990
1970-1980 ZERO

1981-1989, cold speed
1985 ? turtles

1989 248 turtles 2% cold speed

50% JANE
PROVACHO

"Breakout" "EXPLODING"

1135 AM
Cecilia

1982 TAMAR

1100 km Brazilian coast

What other ^{similar occurrences} disease(s) do we live with?

need
GB
MC
SH
TW
SARKM

Study Maui ONLY -

Body Condition difference?

6000km S TO N increasing FP

May 2013 BRAZIL FP Workshop

7 institutions - made recommendations

2 PM

Alexandre Girard RVM Rostoma

CONGO

Braserville

West
Central
Africa

PACIS UNIVERSITY

SHINSASTHA The other Congo
only 40 km
of Coast

BRASERVILLE 2005 - present
2008

431
12000
Pounds

82 Months

"Typhoid
BARRIS"

letter
MS TO
Lynch

DV
19

6/12/2015 Friday
3PM COL LIMPUS

2 Ag
219
TW-110

"Grants" "Lumps"

50 years - minor problem is [General paper] needed
AUSTRALIA

Milani - 430 pm -

Send
Her
small
F&A
SHIP

Public
A
1958

H
STA
" W
TO
Send

Sham
No cle
view
PA

- ① Virulence
- ② Transmissibility
- ③ Chronicity

DVD TO 1988 COL

DAX

13 JUNE 2015

DAY 3

SATURDAY

9:15 AM

KARINA JONES

signed plans for need PhD

- MOLECULAR EPIDEMIOLOGY >
- ENVIRONMENT LINKS

Send Her Bennett FLAG SHIP

Horizontal Transmission
Relationship between genetic stock
Papilloma virus Screening

MALAMA NA HONU

Thank him
Graham Burkes

MIKE JONES

PUBLICATION
Turtle Health

Publication coming out

A PAGE

1958

UNKNOWN
need Breakout MAUI

SHAWN - 9:45 AM
HAWAII

2010-2011 - Sharp Peak
STRANDINGS

ALL BAR graphs

"Numbers still declining"
TO STEERING

Send HPAO Link West Hawaii N=9
TMR

interval TMRs / oral

SHAM
No clear view of AND PRESENT
PAST RE TMR HA NO George

Ocean Research

"DON'T DO IN water Maui"

1045 AM

TW - Science Facilitator

→ Frame

Hawaii

Australia

FL

P.R.

Brazil

Congo

sed

CPUE

Tech

Memo

UFL

Gainesville

ed - Journal papers in progress
Not give details

① Where FP recognized - Time Line

STATUS

source stock Genetics

GTFP

Llew

CPUE

Rise curve

nesting

exponential

BRANL

PA

FC

HI

AOS

source stocks known

referring people to demographic perspectives

(survival mortality)

pathogen induced mortality

N=16

me

DOC =
self-funded

TW - speak Portuguese
LANGUAGE issue SAT#

6/13/2015

cell 3 vesty ^{am} beaches Brazil - stable or
inside 2000 ^{increasing}
water

Colgo 2008 - now

20-30% capture rate 12,000
Frequency of encountering Tumors

Col Morton Bay ~~others~~ Extremely Low

Search Hard where it's problem / issue
FP

worst medium low none overall
focus ↑ on

Col - Morton Bay

Milavi - Gold Stinking
opportunities

MARK FLINTS WIFE = PhD extreme
weather events

N=16
one of many

Lumps VS Tumors
growth

Bready - least likely impacts

6/13/2015 TW presiding
142pm

TIME LINE in Presentations

Monitoring

Research need
BEILL 1991

Research
Veterinary
Ecological perspective

Made
of
transmission

Social Behavior

"Most turtles don't die from it"

Health issue

Public relation issue

evolutionary ecological diversity

Amazing Disease
Chronic

Platform
Iconic project

WATER STAYS
(CATCH WATER)

well
work
"
AF
LE
TE
"
AL

6

web site
working Group

Need
Research
Techniques
MANUAL

PPPP-018
9 CASES
KONA?

2000 TM
Effort CPU

"
Epidemic Curve" - DAN
LEW rise & FALL
TO DAN
TO ~~LEW~~ LEW

"
ALLEN AROUND?
Mystery

6/14 Sunday 9:30 AM pickup
Drive AROUND OAHU.

541-270-9697
Heather Fortner



COURTESY PHOTO BY URSULA KEUPER-BENNETT

This sea turtle is covered with tumors due to fibropapillomatosis, a disease that appears to be spreading.

Scientists seek insight on lethal turtle malady

6-14-2015

By Timothy Hurley
thurley@staradvertiser.com

Scientists have come to Hawaii from all over the world to report findings of a deadly tumor disease in turtles that appears to be spreading globally.

Ironically, Hawaii is one of the few places where fibropapillomatosis has been on the decline.

The 2015 International Summit on Fibropapillomatosis convened Thursday at the National Oceanic and Atmospheric Administra-

tion's Pacific Islands Fisheries Science Center in Honolulu and will conclude Sunday.

The forum aims to assess the status and trends of the disease globally and convene an expert group to evaluate data and identify areas where more data is needed, among other things.

The summit chairman is longtime Hawaii turtle researcher George Balazs of NOAA's Turtle Research Program.

Please see **TURTLES, B3**

TURTLES: Disease on decline in Hawaii

Continued from B1

Twenty-five scientists from as far away as Africa, Europe, South America and Australia are comparing notes and exchanging ideas, said Thierry Work, a U.S. Geological Survey wildlife disease specialist from Honolulu.

"We're trying to figure out what happens next and where we go from here," Work said Friday.

In Hawaii, fibropapillomatosis, also known as FP, is the leading cause of green sea turtle strandings.

Turtles with FP often show tumors on the skin of the flippers, neck, eyes, corners of the mouth and internal organs.

Some these grotesque tumors can exceed the size of a cantaloupe, and turtles burdened with lots of these tumors can become severely emaciated and die.

The good news in Hawaii is that while FP peaked in the mid-1990s, when nearly half of all green turtles were seen here with tumors, the

disease has since declined to less than 10 percent of the population, Work said.

What's more, he said, the numbers of nesting turtles have been increasing at about 5 percent annually since the 1970s.

Elsewhere, the news about FP isn't so promising. It's either stable or increasing in most regions of the world, with the disease continuing to show up on new shores, according to turtle scientists.

A 2013 paper by Balazs and Work described the disease as an "insidious menace."

The tumors are essentially a form of cancer, according to Balazs and Work, and it almost exclusively affects green turtles and, to a lesser degree, olive ridleys and loggerheads.

So much about the disease is baffling, with FP expressing itself differently in different parts of the world.

In Florida, for example, liver tumors are common, while in Hawaii they are rare, the biologists said. Tu-

mors in the mouth are relatively common in Hawaii turtles but rare elsewhere.

In addition, tumor regression is much more common in Florida than it is in Hawaii.

There are mysteries on the local level, too. For example, FP is prevalent in turtles along the east coast of Hawaii island but not so much on the west side, they said.

In Florida, turtles in the inner reefs of the Indian River Lagoon suffer from a high prevalence of the disease while those on a nearby reef are affected hardly at all.

Work said FP is common in coastal areas that suffer from wastewater, agricultural and storm runoff, which means finding a cause may lead to responsible coastal development and cleaner oceans for all marine life.

The summit wraps up Sunday with guided field trips to Oahu green turtle foraging and basking habitats.

SEC-270-9697

Turtle friends, Today is my last day in TRP and the Division. As Mr. Balazs is quick to mention, when I returned to Hawaii six years ago I knew much less than today. I agree! Much has happened and changed over this time. I'm thankful for our collaborations over the years, I will take much from it, and so I owe you all a great debt. It's been a good run. As I have spoken with most of you in person, you already know that, for now, I will remain in the same office as I take on a new role in the Director's Office at PIFSC. Take care, and let's talk soon. My best wishes, Kyle

6/12/2014

Fri, Jun 12, 2015 at 4:28 F

Kyle Van Houtan - NOAA Federal <kyle.vanhoutan@noaa.gov>

To: George Balazs - NOAA Federal <george.balazs@noaa.gov>

Cc: Alexandre Girard <agirard6@gmail.com>, Cecilia Baptistotte <cecilia@tamar.org.br>, Allen Foley <Allen.Foley@myfwc.com>, Stacy Hargrove - NOAA Federal <stacy.hargrove@noaa.gov>, Thierry M Work <thierry_work@usgs.gov>, Shandell Brunson - NOAA Federal <shandell.brunson@noaa.gov>, Col Limpus <Col.Limpus@ehp.qld.gov.au>, Carlos Diez <cediez@yahoo.com>, Shawn Murakawa - NOAA Federal <shawn.murakawa@noaa.gov>, Yonat Swimmer - NOAA Federal <yonat.swimmer@noaa.gov>, Jennifer Lynch - NOAA Affiliate <Jennifer.Lynch@noaa.gov>, Brian Stacy - NOAA Federal <brian.stacy@noaa.gov>, Barbara Schroeder - NOAA Federal <barbara.schroeder@noaa.gov>, "Karina Jones (karina.jones@my.jcu.edu.au)" <karina.jones@my.jcu.edu.au>, Isabela Domiciano <isabela.guamier@hotmail.com>, Dan Walsh <dwalsh@usgs.gov>, Milani Chaloupka <m.chaloupka@uq.edu.au>, Frank Parrish - NOAA Federal <frank.parrish@noaa.gov>, Cheryl King <shezking@yahoo.com>, Irene Kelly - NOAA Federal <irene.kelly@noaa.gov>, Tommy Cutt <tcutt@marinelife.org>, Jessica Jacob <jjacob@my.hpu.edu>, Renee Breeden <rbreeden@usgs.gov>, Devon Francke - NOAA Affiliate <Devon.Francke@noaa.gov>, Michael Seki - NOAA Federal <michael.seki@noaa.gov>

To all,

A very fascinating few days of the FP summit. It has been wonderful to listen in these days! I wish I was there with you, and a big congrats to George, Thierry, Shandell, Allen, and Stacy for putting this together.

Below are a few thoughts from me so far as one of the quantitative specialists, though I still need to think through these ideas some more. I am happy to take part in accomplishing these things, so let me know how I can help.

Standardized Metrics. It would be great for the group to agree upon several metrics to describe for each geographical region. Many presentations have shown regional documentation of (i) prevalence, (ii) spatial distribution, and (iii) length-frequency. It might be helpful to come up with standardized framework for some metrics, so everyone is communicating similar things. These are different projects in different places, so there will be some limits. But agreeing upon, for example, using 10 cm SCL bins in length-frequency plots would be a good start. OK, that's easy, but what about severity?

Severity. One such metric most projects have discussed is the severity of FP. We could talk about this in a variety of ways, but many presentations discussed tumor regression. If we could devise a standardized metric for communicating severity, be it in fatality rates, virulence, or regression – this would be a neat metric to see from different regions. But how we describe and quantify this is tricky, for sure. I think it would be worthwhile to try, to show the disease is often not a death sentence. Tumor regression percentages would be one obvious way, another would be estimating survival differences between non-FP and FP turtles.

Historical timelines. An article from this summit would be very much helped to have each region describe a simple timeline of FP history. Many presentations have given hints or more of this. I would love to see, for each region, landmarks of historical events like: when/where it was first discovered, document its spread, describe when it became common/widespread, when it might have peaked, etc. I think these already exist for most places, it is simply organizing the notes and somewhat standardizing the landmarks that we communicate. I actually learned a lot from hearing about these timelines in different presentations. I think this would be very helpful.

2015 at 4:28 F

Work
ampus
Lynch -
Barbara
au"

Renee
Seiki -

was there

to think
now how I

each
patial
some
so there
would be a

is in a
ed metric
to see
hwhile to
vious

cribe a
e, for each
describe
most
cate. I
e very

Sex-based factors. FP studies often show the disease is most prevalent in certain size stages. In Hawaii, for example, we see it most in what George would call subadults (~60-75cm). So size-frequency plots are appropriate and helpful. But researchers deal with the associative risk factor/effect of sex less infrequently. We might have an opportunity here to make progress. I have (unpublished) analysis on Hawaii showing that males and females are equally susceptible to FP up until sexual maturity – then females are 2:1 more likely to exhibit tumors. Could we do a formal analysis from multiple places to this end? Are those results I mentioned from Hawaii biased in some way? What would be causing these patterns?

Environmental promoters. Herpes viruses are often understood as ubiquitous in populations, though most individuals frequently might not actually have the disease. The virus is in latency, which is classic herpes. A neat study would be to compare FP prevalence to herpes prevalence in each local population. This could be accomplished with skin tissues of known FP status at different sites in each geographic region, analyzing skin tissue for herpes DNA. Most projects probably already have the tissues (with FP status) on hand already. Several recent studies have already developed diagnostic herpes DNA tests. There are funding and logistical hurdles to cross, but this is a doable project, and it could help us better understand environmental promotion. Does FP prevalence equal herpes prevalence? Or do most sites have the same herpes prevalence, just different FP prevalence. My money is on the latter :)

Cost of FP rehab. I mentioned this after Brian's talk and I think it might be worth doing. There are the obvious complications of other health issues present in FP turtles, the variation between facilities, the length of stay, etc. But I think it would be a good metric to try and estimate – how much does it cost on average to rehabilitate a turtle with FP with success? There are many "turtle hospitals" in Florida USA in particular, and I am sure they would be willing to partner in this, even if not retrospectively but moving forward. This could help NGOs and government agencies gain financial support for this important work.

Again, I am happy to assist any/every one in whatever ways they might need. I am happy to help.

Let's continue to have a great meeting.

RECONSTRUCTION

6/23/2015

9 AM - 1145 AM

EXTERNAL REVIEW

ONGOING

DATASTREAM

"WOULDN'T WANT THE JOB"

"2x"
Get funding
HAWKS 56.41
ToR
New name

Left behind in favor of
higher priority Pursuits

PALADINO
Demaster

Collection/
Conduction

Generation of data

wed. 29th 8:30 AM
"Turtle Day" Pier 38

Thurs 30th PM AVAILABLE IRC 1:20 - 3 PM

Pub. TO
T. Todd

"EARLY Program History"