



Flint, Beth <beth\_flint@fws.gov>

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## RE: Further Wake Island Fish Sampling

1 message

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**Alex Wegmann** <alex.wegmann@islandconservation.org> Tue, May 21, 2013 at 10:16 AM  
To: "MORAN, MATTHEW T GS-12 USAF PACAF AFCEE/CEAN" <matthew.moran.3@us.af.mil>, "Susan\_White@fws.gov" <Susan\_White@fws.gov>, "Beth\_Flint@fws.gov" <Beth\_Flint@fws.gov>, Richard Griffiths <richard.griffiths@islandconservation.org>, Chad Hanson <chad.hanson@islandconservation.org>

Hi Matt,

Thanks for sharing this with us. Maj. Walker's summary is very thorough and, I think, presents a realistic suite of options for addressing the fish ban and mitigating risk to fish-eating people on Wake.

Cheers,  
Alex

Alex Wegmann  
Island Conservation  
+1.808.277.6749

-----Original Message-----

From: MORAN, MATTHEW T GS-12 USAF PACAF AFCEE/CEAN [mailto:[matthew.moran.3@us.af.mil](mailto:matthew.moran.3@us.af.mil)]  
Sent: Tuesday, May 21, 2013 9:29 AM  
To: [Susan\\_White@fws.gov](mailto:Susan_White@fws.gov); [Beth\\_Flint@fws.gov](mailto:Beth_Flint@fws.gov); Richard Griffiths; Alex Wegmann; Chad Hanson  
Subject: FW: Further Wake Island Fish Sampling

FYI - note the Wake atoll brodifacoum results analysis. We have a couple options. I guess it comes down to how long we want to restrict consumption of fish at Wake. The current recommendation is approximately 942 days. Also with no money are furloughs occurring July 8- end of September, it is unlikely that a sampling project will occur this FY. I'll keep you in the loop, but I thought you might like this info for future projects.

Matt Moran  
AFCEC/CZO  
Alaska IST  
10471 20th St, Suite 339  
JBER, AK 99506-2201  
907-552-0788  
[matthew.moran.3@us.af.mil](mailto:matthew.moran.3@us.af.mil)

-----Original Message-----

From: WALKER, WESLEY W Maj USAF PACAF USAF AEROSP MED SC/Det 3 USAF SAM/CDE  
Sent: Monday, May 20, 2013 8:07 PM  
To: REX, KRISTEN R CTR USAF PACAF AFCEC/CFPE; MORAN, MATTHEW T GS-12 USAF PACAF AFCEE/CEAN

Cc: SILVERS, JOSEPH W LtCol USAF AFMC DET3 USAFSAM/CC; FORCUM, CRAIG H LtCol USAF PACAF PACAF/SGPM; INGOGLIA, J M GS-14 USAF PACAF AFCEC/CFPE; Harvey, Gregory J Civ USAF AFMC USAFSAM/OECC ([Gregory.Harvey@wpafb.af.mil](mailto:Gregory.Harvey@wpafb.af.mil))  
Subject: RE: Further Wake Island Fish Sampling

Matt & Kristen, et. al.

Attached you will find our analysis of the Brodifacoum testing performed on Wake Atoll. I appreciate everyone's patience on this report, as it has ventured into uncharted waters with regards to human risks. Due to the potential severity of human health risk, we proceeded with slow but purposeful intent.

I've included Lt Col Craig Forcum in the distribution, as any fishing bans on Wake Atoll for health reasons should have the visibility of PACAF/SG.

This report was also sent to Greg Harvey (USAFSAM) to garner a toxicologists eye. Greg and I have had several conversations regarding the Brodifacoum exposure (as well as the mercury, DDT, & arsenic exposures), and we both agree that the potential exposures on Wake Atoll will likely be a point of discussion for years to come. Since we do not have a toxicologist here at Det 3, I will defer more specific toxicology questions to Greg (cc'd).

Given the paucity of guidance on this subject, we decided to play this more conservative. Although the continuation of the fishing ban will likely be unpopular, the potential health effects require us to err on the side of caution. I also realize that another round of testing will result in increased funding requirements (in an era of diminishing funds). We feel strongly about another round of testing, as (without another round) we only have one snapshot to make health risk decisions.

If you have any additional questions/comments/concerns regarding this report or how our recommendations were derived, please feel free to contact me via any method within my signature block.

v/r

wWw

WESLEY W. WALKER, Maj, USAF, BSC, CPH  
Medical Entomology/Public Health Consultant  
Deachment 3, USAF School of Aerospace Medicine (USAFSAM)/CDE

[APO Address]  
Unit 5213, Box 10  
Kadena AB, Japan (Okinawa)  
APO AP 96368-5213

[Commercial Shipping Address]  
Unit 5213 Bldg 859  
Kadena AB, Okinawa Japan 904-0020

DSN: (315) 634-2639  
International: 011-81-98-961-2639  
"Meet Me" Conference DSN: (315)-634-4901  
DSN FAX: (315) 634-1429  
International FAX: 011-81-98-961-1429

Japan Cell: 080-6493-1630

NIPR: [wesley.walker@us.af.mil](mailto:wesley.walker@us.af.mil)

SIPR: [wesley.walker@kadena.af.smil.mil](mailto:wesley.walker@kadena.af.smil.mil)

-----Original Message-----

From: REX, KRISTEN R CTR USAF PACAF AFCEC/CFPE

Sent: Tuesday, May 21, 2013 9:32 AM

To: WALKER, WESLEY W Maj USAF PACAF USAF AEROSP MED SC/Det 3 USAF SAM/CDE

Cc: MORAN, MATTHEW T GS-12 USAF PACAF AFCEE/CEAN; SILVERS, JOSEPH W LtCol USAF AFMC DET3 USAFSAM/CC

Subject: Further Wake Island Fish Sampling

Major Walker,

Matt and I wanted to follow up with you regarding those 2012 Wake Island fish tissue samples. After reviewing the legal response of the questions that we posed to JA a few weeks ago (see below), we realize that we still need to try and pinpoint a few more answers to the following questions:

- 1) Were the 2012 fish tissue samples adequately tested (in accordance with AF and EPA regulations)?
- 2) Were the results provided by the Tokyo lab above approved EPA limits?
- 3) If we were above the EPA approved limits for Brodifacoum, do we need to test again or has enough time passed that this contaminate would no longer be a concern to the environment?

We look forward to hearing from you.

V/r

KRISTEN REX, Contractor, BB&E

Supporting the 611th CES/CEAN & AFCEC/CFPE

25 E Street, Suite F-215, Joint Base Pearl Harbor-Hickam, HI 96853

DSN 315.449.0574 | CELL 808.927.4619

[kristen.rex.ctr@us.af.mil](mailto:kristen.rex.ctr@us.af.mil)

-----Original Message-----

From: OGDEN, AARON S Maj USAF PACAF AFLOA/JACE-FSC

Sent: Friday, May 17, 2013 11:37 AM

To: REX, KRISTEN R CTR USAF PACAF AFCEC/CFPE

Cc: MORAN, MATTHEW T GS-12 USAF PACAF AFCEE/CEAN; GRANNIS, WILLIAM E GS-13 USAF PACAF AFCEC/CFPE; INGOGLIA, J M GS-14 USAF PACAF AFCEC/CFPE; WALKER, WESLEY W Maj USAF PACAF USAF AEROSP MED SC/Det 3 USAF SAM/CDE

Subject: RE: Re-Cap of 1 May 2013 Meeting Regarding Further Wake Island Fish Sampling

Kristen- As you probably know, I enlisted the help of the Environmental Law Field Support Center- and we have researched the issue- here are some answers to your inquiries. If these answers raise other questions, please let me know.

## ISSUES/QUESTION in NEED OF LEGAL GUIDANCE:

1) Is there anything within the 2009 presidential proclamation for the Pacific Remote Island Marine National Monument that would not allow residents and visitors to continue current fishing activities at Wake Island? If so, then is there a permit the AF may apply for to continue fishing activities (which include recreational and consumption fishing) at Wake? If not, then there really isn't much justification to fund further sampling of fish at Wake.

ANSWER: No- the 2009 Presidential Proclamation for the Pacific Remote Island Marine National Monument does not specifically address recreational fishing (as opposed to commercial fishing). Since other legal authorities specifically permit the AF to regulate recreational or "non-commercial" fishing, the 2009 proclamation would need to specifically rescind that authority, which it does not do.

The 2009 Presidential Proclamation itself allows "noncommercial fishing" to occur. It also states that "recreational fishing shall be managed as a sustainable activity in certain areas of the monument consistent with [EO] 12962." EO 12962 requires federal agencies to improve aquatic resources to support increased recreational fishing activities. The 1972 "Agreement Between the Department of the Air Force and the [U.S. DOI] Concerning the Administration of Wake Island" (1972 USAF/DoI Agreement) gives the AF authority to exercise management and administration over Wake Island. Together these documents give the Air Force authority to regulate fishing from the emergent lands and authority to exercise delegated authority over other fishing activities. While the 2009 establishment of the national monument doesn't prohibit fishing, the Air Force's authority to manage fishing at Wake Island could justify further sampling (as part of the AF authority to "regulate fishing") if it is determined by toxicological experts to be necessary or prudent (i.e. to protect human health).

2) If a permit is needed or obtainable from the Dept. of Interior or Dept. of Commerce for fishing at Wake should there be further testing of the lagoon fish in particular to ensure its safe to consume considering the 2002 and 2012 fish tissue results?

ANSWER: This question should be addressed by toxicologists based on the prior samples and the potential risk to human health (or other risks) from fish consumption.

3) If it is determined that there should be further sampling of the lagoon fish, what is the appropriate legal driver/channel to obtain funding for the sampling? (Environmental, Bioenvironmental, Health & Safety)

ANSWER: The authority given to the USAF through the 1972 USAF/DoI Agreement coupled with the requirements of EO 12962 (for federal agencies to "improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities") and the Wake Island INRMP, the Sikes Act (military installations "shall carry out a program... to provide for... the sustainable multipurpose use of the resources, which shall include ...fishing"), and Wake Instruction 32-7001 together are appropriate legal drivers. The AF has been given authority to administer Wake, and because federal agencies are charged, through the Sikes Act and EO 12962 to provide for and manage recreational fishing (among other

activities) on the land within their purview, it would be necessary to determine whether the fish at Wake Island are safe for human consumption as a result of recreational fishing, which is allowed and currently occurring on Wake. Also, bioenvironmental or medical regs could potentially be used to drive further testing.

4) Given the answers to the questions above should the fish consumption ban remain in effect until further sampling?

ANSWER: Safety for consumption should be answered by toxicological experts based on the 2002 and 2012 samples and other applicable factors. However, if there is a known or potentially likely risk, we recommend against exposing our personnel or others to that risk. From a legal standpoint, we would recommend leaving the consumption ban in effect until toxicologists have finished the evaluation of the 2012 test results and have established the risks from fish consumption (or if they determine that further tests are necessary, until after those tests are evaluated).

v/r  
Aaron

AARON OGDEN, Maj, USAF  
PACAF - Environmental Liaison Officer  
Air Force Legal Operations Agency  
Environmental Law and Litigation Division - Field Support Center  
25 E Street, Suite A-314  
Hickam AFB, HI 96853  
DSN 315-448-2174 Comm (808) 448-2174

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-----Original Message-----

From: REX, KRISTEN R CTR USAF PACAF AFCEC/CFPE  
Sent: Friday, May 03, 2013 10:44 AM  
To: OGDEN, AARON S Maj USAF PACAF AFLOA/JACE-FSC  
Cc: MORAN, MATTHEW T GS-12 USAF PACAF AFCEE/CEAN; GRANNIS, WILLIAM E GS-13 USAF PACAF AFCEC/CFPE; INGOGLIA, J M GS-14 USAF PACAF AFCEC/CFPE; WALKER, WESLEY W Maj USAF PACAF USAF AEROSP MED SC/Det 3 USAF SAM/CDE  
Subject: Re-Cap of 1 May 2013 Meeting Regarding Further Wake Island Fish Sampling

Major Ogden,

Thank you very much for taking time to meet with me yesterday morning, we value your input on this topic and we are looking forward to some direction on a path forward. Just a quick recap of our discussion and the questions that we are hoping to resolve:

BACKGROUND: A 2002 Risk Evaluation of Chemical Levels in Fish Tissue at Wake Atoll found that "typical fish consumption patterns of lagoon-caught fish by Wake personnel may result in a potential health hazard if exposure occurs

over a long period of time" based on "The amount of inorganic arsenic (the toxic form of total arsenic) present in the fish tissue" which was assumed to be 10 percent (%) of the total arsenic concentration. The risk assessment goes into greater detail; ultimately the 36 CES (Anderson AFB) issued an Interim Wake Island Lagoon Fish Consumption Advisory sometime in 2002/2003. The report does mention that "Analytical data on fish tissue was also collected for potential future analysis of the ecological risk from food chain exposure via fish ingestion if environmental data suggest off-site migration of chemicals to the lagoon has occurred", no further analytical data has been collected.

In August of 2012, 50 lagoon species were collected and sampled by a Japanese lab for residuals of Brodifacoum after an aerial broadcast of Brodifacoum occurred in an effort to eliminate rats from the atoll. 5 of the 50 samples collected tested positive for a "minimum limit of determination" not necessarily a "minimum detection limit". The translation of the test results are currently being further evaluated by a USAF Entomologist (Major Wesley Walker), AFCEC/CZTE Toxicologist (Dr. Paul Jurena) and USAFSAM Toxicologist (Gregory Harvey) for clarification.

A 2009 presidential proclamation established the "Pacific Remote Islands Marine National Monument" which includes Wake Atoll. The proclamation reserved the monument for the purpose of protecting the objects identified in the proclamation document, all lands and interest in lands owned or controlled by the Government of the US within the boundaries described as "Pacific Remote Islands Marine National Monument". There is a "Regulation of Fishing and Management of Fishery Resources" section within the proclamation that discusses permitting of noncommercial fishing upon request. No such formal request has been made. The AF will soon be engaging with the Dept. of Interior on the subject of fishing at Wake Island during the update to the Integrated Natural Resources Management Plan, and establishing an AF perspective on this matter beforehand will allow us to approach this topic within the management plan update appropriately hopefully mitigating a long drawn out comment period with DOI on this particular subject.

#### ISSUES/QUESTION in NEED OF LEGAL GUIDANCE:

1) Is there anything within the 2009 presidential proclamation for the Pacific Remote Island Marine National Monument that would not allow residence and visitors to continue current fishing activities at Wake Island? If so, then is there a permit the AF may apply for to continue fishing activities (which include recreational and consumption fishing) at Wake? If not, then there really isn't much justification to fund further sampling of fish at Wake.

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3) If it is determined that there should be further sampling of the lagoon fish, what is the appropriate legal driver/channel to obtain funding for the sampling? (Environmental, Bioenvironmental, Health & Safety)

4) Given the answers to the questions above should the fish consumption ban remain in effect until further sampling?

Respectfully,

//SIGNED//

KRISTEN REX, Contractor, BB&E

Supporting the 611th CES/CEAN & AFCEC/CFPE

25 E Street, Suite F-215 | Joint Base Pearl Harbor-Hickam, HI 96853

DSN 315.449.0574 | CELL 808.927.4619

[kristen.rex.ctr@us.af.mil](mailto:kristen.rex.ctr@us.af.mil)