

US FWS FOI emails pertinent to 2015 IUCN assessment

I've redacted email addresses and direct phone numbers. For reference in the emails that follow:

Simon Stuart, Chair of the IUCN Species Survival Commission

https://www.iucn.org/media/iucn_experts/?11636/Simon-Stuart-Chair-of-the-IUCN-Species-Survival-Commission Bath, United Kingdom

Craig Hilton Taylor, IUCN Red List Unit Manager.

http://www.iucn.org/news_homepage/news_by_date/?6164/A-peek-behind-the-figures

Resit is Dr. Resit Akçakaya, Professor in the Department of Ecology and Evolution at Stony Brook University and head of the IUCN Red List Petition committee that would evaluate all assessments that involved climate models.

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Begin transcript of email chain starting 7 May 2014, pg. 12 of “PBSG 01_FMELC relevant FWS PBSG docs,” in chronological order:

On 5/7/2014 [7 May] 11:04 PM, Øystein Wiig wrote:

Dear Kristin,

Yes please talk to Resit. I have had contact with him and enclose the most recent mails from late 2012. I discussed all this with Steve and he was not very happy about Resit's view. This illustrates the difficulty I think we have with the red list assessment. I had hoped that Resit could be at our meeting in Ft Collins because that could have helped us a lot.

Good luck and let me know what you learn.

I am travelling to Mandal this afternoon to take over the new house. Next weekend we will celebrate our 200 years constitution and independent day 17 May from Denmark. Karen and Erik will come and help us! :)

Hilsen
Øystein

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From: Kristin Laidre klaidre@xxxxxxx
Sent: Thu May 08 2014 17:35:58 GMT-0600 (MDT)
To: Øystein Wiig <oystein.wiig@xxxxxx>, Eric Regehr <Eric_Regehr@xxxxxx>
Subject: Re: FW: Polar bear Red List - meeting with Resit

I hope you have a nice time celebrating your independence from that small, very flat country. It is extra gratifying to celebrate it with some Danes :)

I wanted you to know I had lunch with Resit today. It was very informative and we had good talks about the polar bear Red List issues. I wanted to let you know what I learned. I cc Eric since it seems the 3 of us are the most involved in the Red List issue at the moment. I also thought I should write you both in case you think of anything more specific I should ask Resit tomorrow, our last day here.

I am not entirely sure of Resit's position within IUCN (?) but I guess he is peer reviewing the proposed listings? He struck me as a very nice, smart person (with good humor, which helps).

-Overall he is very negative to the Amstrup et al. model and says it has very little value for anything, or the Red List.

-He said it is difficult to fill out just one conditional probability table, but having thousands all merged together in the BN is just crazy and tells you nothing (he actually said "only Bayesians would accept 'a belief' to be a "probability!")

-He said he felt if PBSG used the BN model again this time for the new Red List it would very likely NOT be accepted and the polar bear would be listed as "Data Deficient", which he felt would be a shame and also not a good thing politically. (if we cannot figure out where polar bears get listed how can we do it for other species).

-He gave me a few suggestions on what he thought would work - he wisely said to root the analysis in actual data and mechanistic things we understand and do not go crazy. I think some of these things Eric is already doing with his models, but I am not sure.

habitat change and population size change was not good enough documented in our assessments.

We are now working on a re-assessment of the polar bear and will try to base our assessment on a demonstrated relation between habitat change and population change. We will base that part of the assessment mainly on the two attached papers. [attachments not available]

I understood from Dag that you at the outset are a bit skeptical to the use of Bayesian methods in such an assessment. In order to try to avoid difficulties with regard to the polar bear assessment I should like to have some guidelines on how you think we should do this in a way that will be accepted by the IUCN system.

Best wishes
Øystein Wiig

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On 20.03.2012 13:27 Resit Akcakaya wrote:

Hello Øystein,

In my discussion with Dag Vongraven [PBSG chairman], I did voice some concerns. But these were not about Bayesian methods in general, but rather about the specific paper (Amstrup et al. 2008). After reading the paper again, and soliciting other opinions, here is a summary of my concerns. I am copying Craig [Craig Hilton-Taylor], because he initiated and was present at the discussion.

As I understand it, the tables in Appendix B of this paper are prior conditional probabilities (i.e., they are model inputs), and are based on expert opinion. (In the paper, they are based on the opinion of a single expert; I assume if this method were to be applied for an assessment, more experts would be consulted.) If I counted correctly, there are about 1600 conditional probabilities in total. Even if many of them are zero by definition, there would still be several hundreds of probabilities to come up with. I find it difficult to form an opinion even about a single conditional probability. I am concerned that, even if many experts are consulted, the result will be based on a large number of opinions that are impossible to validate. So my first concern is that this approach will make the assessment too much dependent on expert opinion. If this approach were to be used, it would be essential for multiple experts to independently estimate these

probabilities based on data, and to explicitly document how each expert's judgments are informed by data. The paper states that published and unpublished data were used and claims that "conditional probability tables (Appendix B) were parameterized according to best available knowledge of polar bears and their environment", but nothing is cited as a data source in Appendix B and no details of the parameterization are given.

In addition to independently estimating these probabilities, the experts should also independently evaluate the model structure and the input values specified in Appendix D.

Furthermore, I am concerned about the degree to which uncertainty would be compounded through the model with so many uncertain parameters.

Although the paper includes a sensitivity analysis, I don't think this is sufficient. In addition to a comprehensive (global) sensitivity analysis, it would be necessary to try to validate the model retrospectively (by comparing the results to the population reduction that has so far been observed).

Another concern is how this whole exercise relates to IUCN Red Listing.

The different states of the system components are for the most part qualitative and then probabilities are assigned to these. So while the category "extinct" has a specific numerical value ($N=0$), the categories "smaller", "larger", "rare", "increase", "decrease" etc do not.

It is not clear how this system can be used for IUCN Red Listing. For instance, the percentages given in Table 2 are not % declines or increases; they are probabilities that the population will be "smaller", "larger" etc. Knowing that the probability of a reduction is 30% does not allow you to calculate how much the reduction will be.

The only specific level of decline is specified as the "extinct" outcome. But, there is a problem here, too: It is not clear how you can get a probability for $N=0$, when most of the states (including survival and reproduction rates) are qualitative. Thus, it seems like this is mostly a probability based on expert opinion, and not what is meant by "quantitative analysis" in criterion E. If this approach were to be used for red-listing under criterion E, it would be essential to clarify how these qualitative states translate to an extinction probability.

Regarding our 2006 paper: please note that this was an opinion paper, and the opinions expressed in it are not necessarily those of the IUCN.

The official IUCN guidance on red listing is the Red List Guidelines document.

I did not see the calculations that led to the 2006 and 2008 [IUCN] assessments of polar bears, so I cannot comment on these. The methods outlined in Durner et al. (2009) [for ESA] seem reasonable for projecting habitat loss. As discussed in the Guidelines, these projections need to be converted to population change projections for each region (please see sections 5.7 and 12.1.3), and then combined (pooled or averaged with weights) to calculate the global reduction (please see pages 48-57).

The conversion from habitat change to population change depends on the details of the species' ecology and adaptability. In the absence of detailed data, this may add to the uncertainty of the estimate.

So, for example, if the projected habitat reduction in a particular region is 15-20%, the population reduction inferred from this may be, say, 10-30% for one species, 5-20% for another and 30-40% for a third.

This is because in some cases the population reduction is slower than habitat loss (e.g., because "habitat" is not strictly defined, or low quality habitat is being lost faster than high quality habitat), and in other cases population reduction is faster than habitat loss (e.g., because habitat is also being fragmented, and thus leading to more frequent local extinctions, or high quality habitat is being lost faster than low quality habitat). Thus, the relationship between population reduction and habitat loss may not be linear. However, the Guidelines state that "in the absence of more specific information, it is an allowable assumption."

I and the other members of the SPSC would be happy to help you. Although we cannot tell you how to do the assessment, we will do our best to answer specific questions about the application of the criteria.

Best wishes,

Resit.

H. Resit Akcakaya

Professor

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On 10/19/2012 3:37 AM, oystein.wiig@xxxxxxxxx wrote:

Dear Resit,

I refer to our earlier contact in relation to the polar bear assessment. Our work has been delayed but will now be revitalized in relation to a meeting of the PBSG in Oslo next week.

I hope you can give me some more guidelines in relation to how to estimate the relation between degree of habitat change and the degree of population change. We do not have good data on that for any subpopulation.

a [sic]

The habitat for polar bears is the Arctic sea ice. We know that the extent of the sea ice is decreasing. One problem is that total extension of the ice varies tremendously through the year (- 3 mill- 15 mill km²). Based on sea ice models we are able to estimate change in sea ice distribution or Optimal Habitat by subpopulation say 50 years into the future (polar bear generation time - 15 yrs). This can be done by March (max extension) and Sep (min extension) or integrated over all months, and weight in relation to subpopulation sizes.

But to go from estimated change in habitat to population change is difficult.

I have certainly red [sic] the pages you refer to in the Guidelines and your explanation below. I see that we are allowed to assume a linear relation between habitat and population changes but what about the slope? In the Guideline 5.7 second paragraph is given an example which I assume are saying that if a 70% decrease in EOO over last five years it might be justified to infer a 50% decline in the population over the past ten years, In this case does "infer" actually means "by expert opinion"?

In our 2006/2008 [drafted 2006, published 2008] assessment we made the following evaluation:

"The assessment is based on a suspected population reduction of >30% within three generations (45 years) due to decline in area of occupancy (AOO), extent of occurrence (EOO) and habitat quality.

Polar bears rely almost entirely on the marine sea ice environment for their survival so that large scale changes in their habitat will impact the population (Derocher et al. 2004). Global climate change poses a substantial threat to the habitat of polar bears. Recent modeling of the trends for sea ice extent, thickness and timing of coverage predicts dramatic reductions in sea ice coverage over the next 50-100 years (Hassol 2004). Sea ice has declined considerably over the past half century. Additional declines of roughly 10-50% of annual sea ice are predicted by 2100. The summer sea ice is projected to decrease by 50-100% during the same period. In addition the quality of the remaining ice will decline. This change may also have a negative effect on the population size (Derocher et al. 2004). The effects of sea ice change are likely to show large differences and variability by geographic location and periods of time, although the long term trends clearly reveal substantial global reductions of the extent of ice coverage in the Arctic and the annual time frames when ice is present.

While all bear species have shown adaptability in coping with their surroundings and environment, polar bears are highly specialized for life in the Arctic marine environment. Polar bears exhibit low reproductive rates with long generational spans. These factors make facultative adaptation by polar bears to significantly reduced ice coverage scenarios unlikely. Polar bears did adapt to warmer climate periods of the past. Due to their long generation time and the current greater speed of global warming, it seems unlikely that polar bear will be able to adapt to the current warming trend in the Arctic. If climatic trends continue polar bears may become extirpated from most of their range within 100 years.

There is little doubt that polar bears will have a lesser AOO, EOO and habitat quality in the future. However, no direct relation exists between these measures and the abundance of polar bears. While some have speculated that polar bears might become extinct within 100 years from now, which would indicate a population decrease of >50% in 45 years based on a precautionary approach due to data uncertainty. A more realistic evaluation of the risk involved in the assessment makes it fair to suspect population reduction of >30%."

It seems clear that the final evaluation here contains some degree of "expert opinion". I guess this is actually what you criticized in your paper!

I hope you are able to provide me with some more info/examples on how similar problems have been solved/assessed in other evaluations that has [sic] passed the reviews of the IUCN system.

For the polar bear assessment we need to use what we have of information. IUCN has stressed: "BUT a lack of high quality data should not deter assessors from applying the IUCN criteria."

I hope we are able to reach a fair assessment but I feel we need some more guidelines/help to be on the right track in relation to the IUCN system.

Best wishes
Øystein

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On 10.20. 2012 18:16 Resit Akcakaya wrote:

Hi Øystein,

First, I'd like to clarify something. Our 2006 paper referred to the Polar Bear listing, but we did not actually criticize it. We just mentioned that criterion A3 is the most straightforward way to red-list species threatened by climate change; we then cautioned that the relation between habitat change and population change should be carefully considered. Also, note that the paper was concerned as much (or maybe more) about underestimating population reduction as overestimating it. It is easy to come up with scenarios in which % population reduction could be more than % habitat reduction (although I don't know which is more likely for polar bears).

I understand that you have a very difficult assessment in [sic] your hands. I think one thing that would help the situation is to detail the degree of uncertainty in habitat reduction in the 45 years, e.g., in the form of a best estimate and lower and upper bounds (similar to what you have in the earlier assessments, but for 45, not 90 years). You might want to (or, maybe you already did) this separately for each subpopulation.

Then, the crucial issue is the population reduction that will result from that amount of habitat loss. If there are not data on this, and therefore it has to be based on

expert opinion, I would think that it would be more appropriate to call the population reduction “suspected” instead of “inferred.”

When doing such an assessment, I think it is useful to record how the expert opinion was elicited. I am not really an expert on eliciting expert opinion, but I believe that a structured approach works best. One approach I’ve heard about starts with an open discussion among the experts of all the available information. Then the experts, without communicating with each other, quantify the suspected reduction. After everyone is informed of the range of opinions, and further discussion (esp. justification of the extreme values), there is a final round of voting or qualification of reduction.

Perhaps it might be easier to do all of this elicitation separately for each subpopulation, and then combine the suspected declines the subpopulations using the weighted averaging approach described in the guidelines. This could be especially helpful if the experts found it easier to form an opinion of the suspected reduction in a given subpopulation, instead of the global reduction.

Of course, it is very important to record the justifications that were given by the experts, referring for example to the biology of the species and any relevant observations as much as possible. When documenting these and when editing the final justification, I would recommend that you avoid using value-laden expressions such as “fair”.

I sincerely appreciate your determination to make an assessment using the available information and not be deterred by the lack of high quality data. I hope my comments are useful. Perhaps Craig may be able to provide additional comments or examples.

Good luck in your meeting!
Resit

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On 10/22/2012 6:19 AM, oystein.wiig@xxxxxxxx:

Hi Resit,

Thank you for your feedback!

I understand our 2006 assessment was not that wrongly performed .

We have to discuss how we can use your suggestions in our new assessment. The BN modelling of Amstrup et al. will in any case be central for what we will "suspect" for the future, in addition to other publications on effects of habitat change on the bears.

Best wishes

Øystein

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--Original Message--

: From: Resit Akcakaya [mailto:resit.akcakaya@xxxxxxxx]

: Sent: Monday, October 22, 2012 2:55 PM

; To: oystein.wiig@xxxxxx

Cc: Craig Hilton-Taylor

I Subject: Re: Polar bear Red List

Hi Øystein,

I wanted to remind you that the SPSC had a large number of reservations about the BN modeling of Amstrup et al.

I would therefore recommend against relying heavily on that paper.

Also, attached is a recent paper on another BN modeling approach that was proposed for red listing. The issues we discuss in this paper are not the same as SPSC's reservations about the Amstrup et al. paper, but there are some similarities.

I hope you have a productive meeting.

Resit

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[end of copied emails from 2012 included in the email from Kristin Laidre 8 May 2014]

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New message from Kristin Laidre to Wiig, cc to Regehr, file “PBSG 02_FWS_PBSG_Lunch with Resit” 9 May 2014, Pg 12...

From: Kristin Laidre
Sent: Friday, May 09, 2014 7:59 PM
To: Oystein Wiig; Eric Regehr
Subject: Re : FW: Polar bear Red list. meeting with Resit #2

>

Hi again,

I just had my second lunch with Resit to follow up on these issues, I write you both about it below so I have documented what we discussed (before I forget).

He suggested starting by compiling all the data we have to work with when it comes to this assessment.

-First he said just make some simple plots for the population where we have data such as sea ice change on the xaxis [sic] and trend in subpopulation on the y, even if the plot only has a few points. If the relationship is a mess or very muddy they [sic] maybe we will be quite limited in what we can say. We discussed the complexity of this – and the fact we only have a few populations. We discussed trying other response variables, such as body condition, or some metric of fecundity (# of cubs per female from captures including 0 cubs) which we could

get from more populations if we expanded the GL [generation length] analysis to include all females ever captured from each population (?) over time.

-I talked to him about the proposed methods in OW's [Ø. Wiig's] spreadsheet but he said we need some population variable that is a RATE, so point estimates of abundance won't work. We need some trend.

-He is still very positive to help us. He agreed to be part of a call with our PBSG Red List group, and he said if we wanted to send him some data or models he would look it over before the meeting (and be willing to sign agreements that he has no plans to use the data for anything if it is sensitive to pass on the data to him).

-He said we can ask Simon Stuart [chair of Species Survival Commission] to pay for his travel if we want to have a small workshop or meeting.

-He also noted having an outside person involved has helped assessments in the expert groups where it was complicated or there were differences of opinion over contentious [?] species.

-He asked if FWS would not be happy if there [sic] ESA listed species became DD or was downgraded, but I would only wager a guess on that answer and said I was not sure :)

-We also had a long discussion about TEK [Traditional Ecological Knowledge] and problems with that...he has good insight in that area, too!

That is all I could manage but I think we have a good opportunity to work with him if we want to. He said just to get in touch.

Kristin

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On 5/9 2014 1:01 AM, Øystein Wiig wrote (pg 12): [seems to be a response to Laidre's notes about her lunch with Resit and seems incomplete]

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> Dear Kristin,

This is extremely informative. It underlines what I have tried to inform the group all the time, the generation length is not that difficulty[sic], it is the red list assessment that is the difficult issue! :)

I think Resit is leading the Petition committee in IUCN that shall evaluate all red list assessments that involve climate models. So that committee will evaluate the polar bear model assessment! I think we must accept that they will not accept the BN model! Amstrup can talk as loud as he wants but it will not help!

[It?] would be very good if we could involve Resit more in the process. I suggested earlier he should be invited to Ft. Collins. I assume it is late but not impossible if he was willing. I talked to Dag [Vongraven] Wednesday. We have 1.5h for the red list stuff at the meeting.

When I worked on the red list issue in 2012 I had an idea on assessing it by subpopulation and use the projected optimal habitat changes weighed in relation to subpop [subpopulation] sizes. Then the problem is to relate habitat change to population change. The big question [is] how can we use the info we have from some populations to extrapolate to other populations and into the future. I enclose the spreadsheet I started on. I hope you understand what I mean, but I am not certain how good the idea is. How would Eric's modeling fit in hear[sic]? This would be relevant in relation to the A criteria. You could ask Resit a bit more on how to do assessments by subpopulation and expected optimal habitat change? We are allowed to come up with a range of red list categories in order to express uncertainty. Could you also ask him about the software he has developed for red list assessment.

We might also assess (by subpopulation) in relation to the C criterion [Message ends; the message on the next page (13) in the pdf is another email, from Wiig to Resit, sent on 19 October 2012, transcribed above]

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Reply to Laidre from Wiig, cc to Regehr, same file as above, 10 May 2014, pg 7

From: Østein Wiig <oystein.wiig@xxxxxxx>
Sent: Sal May 10 2014 02:43:05 GMT.0600 (MDT)
To: Kristin Laldre klaidre@xxxxxxxxxxxx, Eric Regehr@xxxxxxx
Subject: RE: FW: Polar bear Red List - meeting with Resit #2

Dear Kristin,
Thank you very much!!

It would be like a “catastrophy” for IUCN and us if we end up with DD [“Data Deficient”]. I think a meeting with Resit would be best but I do know how to get that done. Was he at all able to come to Ft. Collins?? I think this issue is so serious that I could use any evening and night to discuss procedures with him in a small group.

The way I understand you is that also Resit is concerned for the IUCN if we ends [sic] up with DD. So Simon Stewart might be willing to pay for a meeting between some of us.

How many pops [populations] do we have useable that from: SB, WH and SH??
How could we actually use other response variables??

A workshop is the way to go. I do not believe a telephone conference will solve it, but it could certainly help to change focus from the BN modeling to other ways to look at the problem!

Resit earlier has suggested that we could use a subjective evaluation by say twenty experts and estimate uncertainty based on the difference between evaluators. Did you discuss that option at all. [sic]

What do you and Eric think about the way to go?

We shall have a small reception in our new house for friends in some hours and have to prepare for that. On Monday I am occupied with lecture [sic] on polar bear conservation at the University. After that I can concentrate more on the red list issue.

Thank you very much for talking to Resit!! :)
Hilsen
Øystein

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file "PBSG 03_PBs cannot be data deficient" pg. 3-2 (order reversed from original)

On 5/16/2014 1:18 AM, Øystein Wiig wrote:

Hi Kristin and Eric,

I copy you my mail to Steve for information. I hope my mail does not offend him in any way.

Thanks to Eric for your mail . It is very interesting what you are proposing. I rely [sic] hope you are able (will find time!) to contribute to the red list assessment with those ideas. Our deadline is June next year.

I think we should try to arrange a telephone call with Resit as soon as possible, but it could be interesting to know Steve's react ion first.

We need to hear a bit more from Resit about ideas on what red list criterion he assumes we could use, if he is available for an evening call after we have discussed the red list issue at the meeting, and how we could proceed with his involvement. Do you know when the Vancouver meeting is scheduled?

With regard to our presentation at the meeting I suggest I take up general issues and future plans regarding the assessment and you present the status of the GL work. Would that be ok?

Hilsen
Øystein

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[Wiig message to Amstrup, pg 3-4]

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

From: Øystein Wiig
Sent: Friday, May 16, 2014 9:29 AM
To: Steve Amstrup
Cc: Dag Vongraven
Subject: Redlist

Dear Steve,
I hope you are doing well!

I have been thinking a lot on how to proceed with the red list process.

The GL [generation length] issue is now taken care of through the work that are [sic] done basically by Eric and Kristin. We had a good workshop in Seattle in January and have received data from most of the requested populations. We will present GL results at the meeting.

The next and more difficult step is the assessment itself, which we also were working on in 2012. Last week Kristin was at a NASA meeting in WA DC where also Resit Ackakaya was attending. Kristin knew that I had been in contact with him before and asked me if she should contact him and discuss the difficulties we feel we have with the red list assessment. I certainly asked her to do that!

Kristin had a very good discussion with Resit and he was really interested in the polar bear issue! He repeated what he told us in 2012 and was very clear that the BN model was not suitable to be used in this red list assessment. He indicated that an assessment based on the BN model would not be accepted by the IUCN Standards and Petition Subcommittee which he chairs.

(http://www.iucn.org/about/work/programmes/apccico/who_we_are/about_the_species_survival_commission/ssc_leadership/ssc_sub_committee/standards_and_petitions_sub_committee/)

The polar bear would then be declared Data Deficient (DD) by the IUCN! I think that would be dramatic for all parts involved and must be avoided!

Resit has been involved in several red list assessments and was certain it was possible to do the polar bear assessment based on the data we have. We need to find some population rate data that can be related to change in population size. He was actually very willing to be involved and help us. The polar bear assessment is also very important for IUCN. Resit believed that Simon Stuart would support such a cooperation. I think it will be very important and productive to involve Resit. Then we can (hopefully) find a way to do an assessment that is acceptable for IUCN. Resit is probably willing to have a telephone meeting with a smaller red list group in Ft. Collins to discuss this further. In October he will be at a IUCN marine red list meeting in Vancouver. It could be possible to have a small workshop with him there. I will try to have a call with him next week to learn more.

So my suggestion would be to assign a small dedicated group to work together with Resit on the red list assessment. The group could meet with him in October. The group could include you, Eric [Regehr], Kristin [Laidre], Andy [Derocher], me [Wiig] and a few others that are willing to spend time on this.

Looking forward to see you in Ft.Collins!

Best wishes

Øystein

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

From: Kristin Laidre [mailto:klaidre@xxxxxxxxx]

Sent: Friday, May 16, 2014 4:40 PM

To: Oystein Wiig; Eric Regehr

Subject: Re: FW: Redlist

Hi Øystein ,

It was a good mail to Steve and I hope he reacts positively. I would be interested to see the follow-up discussion you have with him. Hopefully he does not shoot the messenger :)

Should we wait to see what Steve says before I write Resit?

The Vancouver meeting is scheduled in October.

I think your suggestions for the Red List session in CO sound good. I suggest Eric present the GL analysis and then he talk about this modeling plans (if he does not have it done by June). I am willing to presenc anything you guys would like but Eric is the one doing the hard work. I guess Steve will also be presenting the BN based on the request from Dag? Or maybe he will change his mind after seeing your email.

Best wishes for a wonderful celebration tomorrow!

Kristin

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NEW TOPIC: Footnote re: global population estimate, file "PBSG 03_PBs cannot be data deficient" pg. 1.

From: Dag Vongraven <dag.vongraven@npolar.no>

Sent: Thu May 22 2014 02:24:15 GMT+0600 (MDT)

To: "3436063@xxx" <3438083@xxxx>, Amalie Jessen <AMALJE@xxxx>, "Anatoly Kochnev (AnatolyKochnev@xxxxx)" <Anatoly-Kochnev@xxxxx>, "Atwood, Todd" <tatwood@xxxxx, "derocher@ualberta.ca" <derocher@xxxxxxxx>, "Dyck, Markus (MDyck1@xxxxxxxx)" <MDyck1@xxxxxx>, "Erik Regehr (Eric_Regehr@xxxxx)" <Eric_Regehr@xxxxx>, "Geoffrey York (gyork@xxxxxxxx)" <gyork@xxxxxxxx>, "George M, Durner (george_durner@xxxxx)" <george_durner@xxxx>, Greg Thiemann <thiemann@xxxxx>, "Ian Stirling (ian.stirling@xxxxxxxx)" <ian.stirling@xxxxxxxx>, Jon Aars <Jon.Aars@xxxxx>, "Karyn Rode (krode@xxxxxxxx)" <krode@xxxxxx>, Kristin Laidre <klaudre@xxxxxxxx>, "Lily Peacock (Ipeacock@xxxxxx)" <Ipeacock@xxxxxxxx>, "Lunn, Nick" <nick.lunn@xxxxx>, "Martyn Obbard (martyn.obbard@xxxxxx)" <martyn.obbard@xxxxxxxx>, "Morten Ekker (morten.ekker@xxxxxxxx)" <morten.ekker@xxxxxxxx>, "Nikita Ovsyanikov (nikita_ov@xxxxxxxx)" <nikita_ov@xxxxxx>, "rdi@xxxxxx" <rdi@xxxxxx>, "Richardson Evan [Edm]" <Evan.Richardson@xxxxxxxx>, "Sonne, Christian (csh@xxxx)" <csh@xxxxxx>, "Stanislav Beilikov (sbelik40@xxxxxx)" <sbellk40@xxxx>, "Steve Amstrup (samstrup@xxxxxx)" <samstruP@xxxxxxxx>, "Ugarte, Fernando" <feug@xxxxxx>, "Wiig, Oystein" <oystein.wiig@xxxxxx>, "Wilder, James" <james_Wilder@xxxxxx>

Subject: Meeting agenda material - footnote on global pb pop range size

Members

You will receive emails from me: with content relevant to agenda items at the upcoming meeting. I ask you to keep track of these and to make sure that you are familiar with them and that you bring them to the meeting. I do not have the capacity [sic] to prepare all the issues for you in an orderly meeting folder. I expect

you to largely be prepared without my help. Also, please review the agenda thoroughly and help fine tune it at the beginning of the meeting.

I am currently at a meeting in Trondheim, crafting the circumpolar action plan together with representatives for [sic] all the range states, this time largely with my Norwegian bureaucrat hat on. Below you will see a text I drafted to follow the 20-25.000 "estimate" as a footnote (fyi, it has been reviewed by Ian [Stirling]).

As part of past status reports, the PBSG has traditionally estimated a range for the total number of polar bears in the circumpolar Arctic. Since 2005, this range has been 20-25,000. It is important to realize that this range never has been an estimate of total abundance in a scientific sense, put simply a qualified guess given to satisfy public demand. It is also important to note that even though we have scientifically valid estimates for a majority of the subpopulations, some are dated. Furthermore, there are no abundance estimates for the Arctic Basin, East Greenland, and the Russian subpopulations. Consequently, there is either no, or only rudimentary, knowledge to support guesses about the possible abundance of polar bears in approximately half the areas they occupy. Thus, the range given for total global population should be viewed with great caution as it cannot be used to assess population trend over the long term. [italics in original]

Regards,
Dag Vongraven
Chair IUCN Polar Bear Specialist Group
Norwegian Polar Institute
Fram Center
N-9296 Tromsø, Norway
XXXXXXXXXXXXXXXXXXXX

NEW FILE: re: Footnote on global population estimate, file "2014-00126-Durner Emails Redacted Crockford again (page 4 only, rest is technical detail)

From: Mike Lockhart <xxxxx@gmail.com>
Sent: Sat Jun 07 2014 19:20:30 GMT-0600 (MDT)
To: Steven Amstrup <samstrup@xxxxx>, Geoff York <GYork@xxxxxxx>, George M Durner <gdumer@xxxxxx>, Anthony M Pagano <apagano@xxxxxx>, Kristin Simac <ksimaC@xxxxxxx>, Krista Wright <kwright@xxxxxxx>
Subject: Crockford -- again!

you may already know about this.

<http://dailycaller.com/2014/05/30/scientists-admit-polar-bear-numbers-were-made-up-to-satisfy-public-demand/>

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From: Steven Amstrup <samstrup@xxxxxx>
Sent: Sun Jun 08 2014 10:35:15 GMT-0000 (MDT)
To: Mike Lockhart <xxxxx@gmail.com>
Subject: Re: Crockford -- again!

Yeah Mike, this is the result of Dag Vongraven (PBSG Chair) trying to be proactive and send Crockford an explanation of what we know and don't know about polar bear population sizes. As you know, Crockford is constantly making comments about there being more bears now than ever-so why are we concerned etc. Dag was trying to straighten that out but not realizing that Crockford is not in any way reasonable and will twist anything she has to her messaging advantage.

There is of course nothing new in pointing out that for many of our polar bear populations we have only educated guesses of their numbers. This is abundantly covered in the notes and proceedings of the PBSG and has been since the earliest days. I have written at least one piece for the PBI web site on these numbers and their uncertainty, presumably it is there some where [sic]. And, I have explained this concept to many media people over the years. So this information has been out there a long time. Somehow, with her shrill voice, Crockford is able to make news out of something that is not surrounded by any controversy (we all know we don't have good estimates for many populations), and is not "new."

One thing Dag did say in his email to her that is somewhat problematic. He suggested that part of the reason PBSG provides these rough estimates is to meet public pressure. That is an unfortunate statement, as public interest or pressure never has been even a consideration in producing numbers. I am not sure Dag even knows why he added that, and he knows that public demand has had nothing to do with provision of those estimates. Even way back in the early days of PBSG, we provided rough estimates of how many polar bears may be in the world. And in those early days, no one in the public ever hears of the PGSG. We worked in near total anonymity with no public contact.

So, that statement about the public is unfortunate, but I don't think it will haunt us for long. There is only so much hay to be made from restating something we all have been up front about for decades.

The good news, if there is any about this, is that at least momentarily, it has taken Crockford's sights off of me. For the past several months, it seems, I have been one of her favorite targets.
SCA