From:	van Manen, Frank
To:	Brian DeBolt; Cecily Costello; Servheen, Chris; Curtis Hendricks; Dan Bjornlie; Dan Thompson; Dan Tyers; David Gustine; Frank T. van Manen; Jennifer Fortin-Noreus; Katharine Wilmot; Kerry Gunther; Kevin Frey; Mark A Haroldson; Megan Higgs; Pat Hnilicka; Steve Cherry; Wayne Kasworm; Michael Ebinger
Subject:	Fwd: Modeling Request for IGBST
Date:	Tuesday, July 26, 2016 3:50:21 PM

IGBSTers,

See message from Wayne below. This request is a result of FWS needing to address public and peer-reviewed comments. In the past, we have discussed the need to do a power analysis like this on the Chao2 estimates. Currently, we only have a deterministic model, which does not really address the questions that are being raised in the comments.

We started to look into the feasibility of this and with Mike Ebinger's skills in stats and program R, we have decided this is doable. The idea would be to investigate how soon we would detect when the different population objectives in Table 1 of the Proposed Rule have been achieved under the different mortality scenarios. This would essentially be a follow-up to the *Ursus* paper by Harris et al. (2007). I think it is important that we pursue this as a peer-reviewed note to add to that previous body of work.

Just wanted to give everyone a heads-up that we are planning on pursuing this. Let me know if anyone has any questions....

Thanks!

Frank

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Frank T. van Manen
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Northern Rocky Mountain Science Center
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Bozeman, MT 59715
Phone 406-994-5043
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---------- Forwarded message ----------
From: **Kasworm, Wayne** <wayne_kasworm@fws.gov>
Date: Fri, Jul 15, 2016 at 3:37 PM
Subject: Modeling Request for IGBST
To: Frank van Manen <fvanmanen@usgs.gov>
Cc: Jennifer Fortin-Noreus <jennifer_fortin-noreus@fws.gov>

Frank,

The Grizzly Bear Recovery Office of the US Fish and Wildlife Service is requesting the Study Team to model the rate of decline and the power to detect the decline at independent female mortality rates of 9% and 10% for the Yellowstone grizzly bear population. If you have questions or need other information about this request please contact me or Jennifer.

Wayne

Wayne Kasworm
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385 Fish Hatchery Road
Libby, MT 59923

TEL 406.293.4161 ext 205
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Reports found at:
http://www.fws.gov/mountain-prairie/species/mammals/grizzly/cabinetarchive.html
or
http://www.igbconline.org/index.php/scy-reports