Emily Bjerre/AMBS/R9/FWS/DOI
04/18/2012 01:31 PM

To "Krych, Scott" <Scott.Krych@hdrinc.com>
cc Margaret Rheude/R3/FWS/DOI@FWS, Matthew Stuber/R3/FWS/DOI@FWS
bcc
Subject RE: model question

History: This message has been replied to.

Who	Date	Time	Subject

Hey Scott,

I think the issue must be with R locating all of the correct files. I was able to paste the code from your e-mail directly into an R-script and run it without any issues.

A couple of trouble-shooting things to try...

1) make sure you have the rv package for r installed: `require(rv)`

2) if it isn't # 1, try commenting out the first part of the CollisionModel.R code that looks like this (this is the code that is telling R where to find the functions that we want it to use):

```
RPath<-"/Projects/Eagles/R"
# RPath<-"R"
sapply(c("FatalFcns","DistFcns","rvsmry"),function(iFcn)
 invisible(source(paste(RPath,"/",iFcn,".R",sep=""))))
)
```

and replace it with the following... but replace /Projects/Eagles/R/ with the path directory for FatalFcns.R, DistFcns.R, and rvsmry.R on your machine.

```
source("/Projects/Eagles/R/FatalFcns.R")
source("/Projects/Eagles/R/DistFcns.R")
source("/Projects/Eagles/R/rvsmry.R")
```

Here was the output from my run with the data you sent:

```
> # Look at the results
>  cat(cProject,"\n")
Black Oak

>  #Number of Turbines
>  print(nTurbine)
[1] 52

>  #Hazardous Area Per Turbine (km^2)
>  print(HzKM2PT)
[1] 0.005281017
```

```
>  print(ExpSvy)
        EMin nCnt   CntKM2 DayLtHr
Overall    7  195 2.010619    4383
```

This is the exposure rate (eagle mins per km^2 per hr) based on the model inputs

```
>  #Exposure rate
>  print(Exp,digits=3)
            Mean      SD
Overall 0.0281 0.00992
```

This is the predicted annual fatality rate (eagles per yr) based on the model inputs

```
>  #Annual Collision Fatalities
>  print(FatalStats,digits=2)
    Names Mean   SD CI50 CI80 CI90 CI95
1 Overall 0.23 0.23 0.15 0.35 0.51 0.68
```


Rplot.jpeg

Let me know if you are still getting that error message once you try the fixes.

- Emily

Emily Bjerre
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Emily_Bjerre@fws.gov
"Krych, Scott" <Scott.Krych@hdrinc.com>

"Krych, Scott" <Scott.Krych@hdrinc.com>
04/18/2012 01:33 PM

To "Emily_Bjerre@fws.gov" <Emily_Bjerre@fws.gov>
cc
Subject RE: model question

Hi Emily,

Thank you for looking into this. Here is the data input file:

Getty Project Data

cProject<-"Black Oak" #project ID to associate with model outputs

nTurbine<-c(52) #number of turbines

RotorDKm<-c(0.082) #Rotor diameterKm2

```
RotorRKm<-RotorDKm/2 #Rotor radii

RotorBuffKm<-(0) #Turbulence buffer

HazRadKm<-RotorRKm+RotorBuffKm # the rotor radius buffer is added to the rotor radius to determine
the final hazardous area radius for
# each turbine

HzKM2<-nTurbine*pi*HazRadKm^2 #Use the radius of the hazardous area around a turbine to calculate
the total hazardous area (in
#square kilometers) for the project by multiplying by the number of turbines

CntHr<-c(0.7166667)  # count duration (in hours)

Days=c(365.25) # days to extrapolate a strata to (prediction)
# should total 1 year for annual collision fatality estimate

LtHrPerDay=c(12) # avg daylight hours per day for "Days" (previous line)

## Create the "ExpSvy" data frame
# this includes the Eagle Minutes observed, number of counts conducted,
# and the area observed at each observation point
ExpSvy<-data.frame(row.names=c("Overall"),
            EMin=c(7),
            nCnt=c(195),
            CntKM2=c(pi*(800/1000)^2),
            DayLtHr=c(Days*LtHrPerDay)
            )

AddTot<-FALSE #Add strata for total (TRUE) or not (FALSE)
```

Scott Krych

From: Emily_Bjerre@fws.gov [mailto:Emily_Bjerre@fws.gov]
Sent: Tuesday, April 17, 2012 8:49 AM
To: Margaret_Rheude@fws.gov
Cc: Matthew_Stuber@fws.gov; Krych, Scott
Subject: RE: model question

Hey Scott,

Hmm, the model does create a tmp object... but you shouldn't need to do anything with it. Could you send me your data input file so I can try to run it on my end? If you would prefer not to, I would suggest check to make sure your ExpSvy data frame looks correct.

Or let me know how many strata you are using and I can set up an input file that works and you can input your values into that to try to track down the problem.

- Emily

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Margaret Rheude/R3/FWS/DOI

04/17/2012 09:40 AM

To "Krych, Scott" <Scott.Krych@hdrinc.com>
cc Emily Bjerre/AMBS/R9/FWS/DOI@FWS, Matthew Stuber/R3/FWS/DOI@FWS
Subject RE: model question Link

Hi Scott,
I am passing your question on to Emily and Matt, who are probably better equipped to answer your question. Let me know if no one gets back to you.
Thanks,
Mags

Mags Rheude
Wildlife Biologist

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"Krych, Scott" <Scott.Krych@hdrinc.com>

04/17/2012 04:40 AM

To "Margaret_Rheude@fws.gov" <Margaret_Rheude@fws.gov>
cc
Subject RE: model question

Hi Mags,

I have run the model and have one question. I am getting an error when running the collision model. Specifically, the error message is saying it cannot find the “tmp” value. I have walked through all of the modules and cannot find a “tmp” value or command. Is this value calculated from the Collision model? Or am I neglecting to provide a some information?

Thanks,
Scott

From: Margaret_Rheude@fws.gov [mailto:Margaret_Rheude@fws.gov]
Sent: Friday, April 13, 2012 1:53 PM
To: Krych, Scott
Subject: Re: model question

Okay - I am not good at all on the model, however, if you send me specific questions I can forward them to Emily, who is our main modeler - she usually answers back really quickly and is pretty knowledgeable about this stuff. So, any questions you have, feel free to shoot them this way.
Thanks,
Mags

Mags Rheude
Wildlife Biologist

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"Krych, Scott" <Scott.Krych@hdrinc.com>
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04/13/2012 12:52 PM

To "Margaret_Rheude@fws.gov" <Margaret_Rheude@fws.gov>

cc

Subject model question

Hi Mags,

Disregard my last e-mail. I figured it out.

Thanks,

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