

**Title of Session:** BirdSleuth Inquiry - Graphing Tutorial

**Moderator:** Jennifer Fee

**Title of File:** 20090422birdsleuthgraphing

**Date:** April 22, 2009

Room: BirdSleuth Inquiry Group

**FurseyM:** I'm here for the event. I've been trying ot join an event with BirdSleuth for over a month and I've finally made.

**BjB** waves hi

**FurseyM:** Hi BJ.

**JenniferMF:** Glad you could make it then, Fursey!

**JenniferMF:** Hi BJ!

**BjB:** I'll announce in a sec, Jen

**JenniferMF:** Great, thanks!

**JenniferMF:** . o O ( secretly hoping we get a few more folks joining us... )

**FurseyM** looks under the rug for more people...

**BjB:** |\*\* ANNOUNCEMENT: Birdsleuth Inquiry is starting in the group room. The topic today is a fun graphing tutorial for collecting and organizing data. To participate type /join JenniferMF in this chat window. \*\*|

**BjB:** just posted a reminder to twitter too

**JenniferMF:** let's give it a couple minutes to see if anyone joins...

**BjB** nods

**FurseyM:** Sounds good.

**BjB:** Gabrielle is in Reception

**JenniferMF:** she'll be in momentarily I'm sure.

**BjB** nods

**JenniferMF** wishes for hot coffee and a cookie

**JenniferMF:** Fursey, are you new to Tapped In, or a pro?

**FurseyM:** Pretty new. I did the tour with BJ about two weeks ago.

**GabrielleM** joined the room.

**BjB** cheers for Fursey

**GabrielleM:** Yay!

**JenniferMF:** Great. I think I've been involved for a few weeks.

**FurseyM:** Since then I just bounce around but haven't gotten active until now.

**BjB :** good job, Gabrielle!

**GabrielleM:** =) hey everyone

**JenniferMF:** hi Gabby.

**GabrielleM:** Sorry I'm a little late. Had trouble getting into the room.

**JenniferMF:** Well, maybe we'll go ahead and get started now that we have a little group of four =)

**BjB :** a learning experience, Gabrielle ;-)

**JenniferMF:** Mind to go ahead and do introductions, everyone?

**JenniferMF:** I'm Jen, and I'm the Project Leader for BirdSleuth. I am in Ithaca, NY

**BjB .** o O ( and you might want to go to the Actions menu in the top right of the chat and select DETACH )

**GabrielleM:** I'm Gabby, BirdSleuth's project assistant in Ithaca as well. =)

**JenniferMF:** I work at the Cornell Lab of Ornithology, I've been there for about 5 1/2 years.

**BjB :** I'm a retired teacher and helpdesk volunteer for Tapped In. I'm located in Pennsylvania

**FurseyM:** My name is Fursey. I'm a science teacher and do a lot of birdwatching with my wife. Hope to bring it into the classroom. I'm in Queens, NY.

**JenniferMF:** Great! What grade, Fursey?

**FurseyM:** 5-8

**JenniferMF:** Wonderful. Quite a range of grades!

**JenniferMF:** I know Gabby and BJ know about "citizen science" but have you heard of it?

**FurseyM:** No, I haven't.

**JenniferMF:** Well, at the Lab, we recruit birdwatchers, like you and your wife, to contribute data about the birds you see...

**JenniferMF:** That's how citizen science works here.

**JenniferMF:** We have project focused on urban birds, feeder birds, nesting birds, etc.

**FurseyM:** Hm, that sounds pretty cool.

**FurseyM:** Next school year I plan to put up a feeder at school.

**JenniferMF:** BirdSleuth tries to bring these citizen science projects to kids-- especially at the middle school level.

**JenniferMF:** Great!

**FurseyM:** Info at the Cornell Lab website/

**JenniferMF:** Another thing that interests me...Questions seem to naturally come up when kids are doing their citizen science observations. We encourage teachers to let their kids do their own investigations. Some kids do experiments, others do observational studies. We publish these reports online in BirdSleuth Reports.

**JenniferMF:** Gabby was the editor on the last edition... Please visit <http://www.birds.cornell.edu/birdsleuth/student-research/birdsleuth-reports> to download the Spring 2009 PDF... let's spend a few minutes looking at that last issue?

**JenniferMF:** o O ( Gabby, feel free to share your experience too =) )

**BjB** checks to see if Fursey got the PDF?

**JenniferMF:** Fursey, let me know if you have trouble accessing it.

**GabrielleM:** Reading the student reports is probably my favorite part of working for BirdSleuth.

**FurseyM:** I got it!

**GabrielleM:** You can tell how enthusiastic they are about their projects.

**JenniferMF:** Great... you'll notice there are a few graphs in there... that's the focus of today's workshop... ways BirdSleuth is working to help kids process, graph, and interpret data.

**JenniferMF:** Gabby, didn't we have to leave one particularly "messy" graph out of this one?

**FurseyM:** The art works are beautiful.

**GabrielleM:** yeah, I remember that. Let me see if I can remember which one, exactly.

**GabrielleM:** The students plotted two variables on a line graph, but you could tell that they didn't really understand what the graph was supposed to illustrate, and probably just picked one that looked "cool" in MS Excel

**JenniferMF:** In our years of collecting these reports, we've really noticed that kids struggle with presenting their data graphically. Do your students struggle with this, Fursey, if you have them to this? On what aspects of graphing do they struggle?

**JenniferMF:** Gabby-- what common challenges have you noticed?

**FurseyM:** I've not done a lot of graphing with them.

**JenniferMF:** Right... very common mistake is that there are actually 2 variables plotted on the Y-axis (for example, number of birds and temperature) over a series of time.

**JenniferMF:** So the graph ends up being very hard to interpret.

**GabrielleM:** Right. I think it boils down to a basic misunderstanding of how to read graphs in the first place. That's my thought on it, anyway.

**JenniferMF:** Common problems: Choosing the right kind of graph.

**JenniferMF:** Correctly doing the axes (dependant variable on Y axis, independent variable on the X axis).

**JenniferMF:** Labeling their graph: axes and title, including units such as "degrees" or "width in centimeters."

**GabrielleM:** Without knowing how the pieces of a graph function, it's hard to create one that is representative of anything meaningful.

**JenniferMF:** True, Gabby.

**JenniferMF:** We've tried to come up with resources to help support teachers in graphing scientific data. One is a lesson plan that is part of BirdSleuth's free online module: Investigating Evidence.

**JenniferMF:** <http://www.birds.cornell.edu/birdsleuth/inquiry>

**JenniferMF:** If you'd like to check it out, I'd recommend that when you get there, click on "Investigation 3: Show Me the Data" which will take you to a PDF of the lesson plans, journal pages, and resource pages for this investigation.

**FurseyM:** They struggle to interpret a graph that has two different types of data running across the graph.

**JenniferMF:** If you are shorter on time, Fursey, you could just check that site out later.

**FurseyM:** I will.

**JenniferMF:** Yes. I wish I could show you an example of a "bad graph." That link (above) was our attempt at providing written scaffolding about how to choose the right kind of graph, and how to make a graph.

**GabrielleM:** Jen, if you'd like I can try to quickly pull one off the server.

**JenniferMF:** No worries... we'd have to put it on our webpage to access it. Would take too long I imagine.

**JenniferMF:** More recently, we've been developing online resources to support students in graphing... that's the other thing I'd like to share this afternoon...

**JenniferMF:** This resource is in EARLY development... so it is just a rough draft. I'd really like your feedback today—in fact, one goal is just to make sure people can open it! It can be found at the same site <http://www.birds.cornell.edu/birdsleuth/inquiry> and please click on the graphing tutorial. It will open a Power Point show. You will have to ENABLE MACROS if it asks you to.

**JenniferMF:** You can find it under "Investigation 3"

**JenniferMF:** Gabby-- see if you can access it today (know you struggled to open it earlier this week)?

**FurseyM:** Downloading...

**JenniferMF:** Hmm... could everyone let me know how long it actually takes to

download it?

**GabrielleM:** My download time was only a few moments on theLab network.

**JenniferMF:** Cool. It just took me about 3 seconds to download.

**JenniferMF:** Look at it in "slide show view"

**JenniferMF:** to make sure you can click through it.

**JenniferMF:** Again, you will have to enable macros to look at it as a show.

**GabrielleM:** no, I still can't get it to work.

**JenniferMF:** Let's spend a few minutes looking at it... I'd love feedback =)

**GabrielleM:** I will be checking it out tonight at home, though.

**BjB** . o O ( have to remember Ralph and Oscar ;- )

**FurseyM:** It downloaded quickly and runs fine on my Mac. I did get a warning that MS Office '08 for Mac does not read or run macros. I don't know what this means but the slide show seems to run fine.

**JenniferMF:** Gabby is also on a Mac. I can't understand why hers doesn't work.

**GabrielleM:** I think we might have hit on something with the Lab security idea yesterday. I'm emailing Colleen now.

**FurseyM:** ...and as a new Powerpoint user, I'll add that it's a beautiful slide show.

**GabrielleM:** or, rather, putting in a helpdesk request.

**JenniferMF:** We definitely have to simplify the language around the "pie chart" slides (a programmer intern did this, who doesn't have a lot of education experience).

**JenniferMF:** Fursey, do you think the Grackles talking is a good approach for 5th-8th graders? Because that is our target.

**FurseyM:** It might be a little corny for the "cool" eighth graders, but really I think it's great.

**JenniferMF:** I think it is engaging, myself. Ahh... it's hard to please a 13 year old =)

**FurseyM:** Very...

**JenniferMF:** I'm hopeful we'll continue work on it. I wanted to run it by a few people (on a number of different computers) before we invest too much time and money on it. But it sounds like you all give it the "thumbs up"

**JenniferMF:** I might also direct you to the citizen science page of BirdSleuth, Fursey, to give you some more background. It's a great way to get kids outside for science (especially this time of year with spring fever running high!)

**JenniferMF:** <http://www.birds.cornell.edu/birdsleuth/about/citizen-science-projects/citizen-science-projects>

**JenniferMF:** Most of these projects are free or extremely low-cost. BirdSleuth offers a number of modules to scaffold them for teachers (those kits-- which contain lessons, journals, tools, posters, etc.) have a nominal fee)

**JenniferMF:** You and your wife might want to just do eBird on your own to try it out next time you are watching birds =)

**FurseyM:** I was just looking at it. It looks like a great resource.

**JenniferMF:** Any questions from anyone?

**BjB:** Fursey, this group was created as a resource and discussion room for people involved with Birdsleuth...

**BjB:** you've already joined the group....

**BjB:** so if Jen or someone else from the group posts to the discussion board...

**BjB:** you will get that post...whether it's a reminder of the next discussion or someone having a question

**FurseyM:** Right.

**JenniferMF** thanks Fursey for joining the group

**BeverlyJ** joined the room.

**FurseyM:** I'm not sure if I get them in my email or I have to log on to TL.

**JenniferMF:** Hello Beverly.

**BjB:** and you also can post to the discussion board if you've got a question

**BeverlyJ:** hello

**FurseyM:** Hi,

**BjB:** Fursey, unless you've unsubscribed from discussion you will get the posts in your email

**BjB** waves hi to Beverly

**BeverlyJ:** hi is this a graphing discussion group

**BjB:** yes, Beverly, but it's just ending :-)

**JenniferMF:** Yes. We're just finishing up... thanks for stopping in!

**BeverlyJ:** I am sorry I just got out of a job

**BeverlyJ:** I will try to make the next bird group

**JenniferMF:** Beverly, are you new to BirdSleuth?

**BeverlyJ:** yes

**BeverlyJ:** first time

**BjB:** fortunately, Jen has some great sessions scheduled for May...

**JenniferMF:** welcome!

**BeverlyJ:** I saw them in an email

**BjB:** and hopefully she'll post reminders to the discussion board

**JenniferMF:** yep, I just scheduled them today.

**BeverlyJ:** that would be great

**BjB** . o O ( hint, hint )

**JenniferMF** takes the hint

**BeverlyJ:** I am a plumber and just finished turning water on at a house and saw that this was going on thought I would see if I could even get to it

**BjB** smiles...well, now you know you can, Beverly!

**BeverlyJ:** yup!



**BjB** : and Jen has some great resources in the group room that you can access at any time

**BeverlyJ**: I will look for them

**JenniferMF**: Fursey, do you have any comments/questions/ideas/recommendations?

**BjB** : you're a member of the group so it's easy to come here by using your drop down favorite places menu in the top right of your screen next to Go!

**FurseyM**: No, not right now. I'm going to start climbing up the learning curve...

**JenniferMF**: BJ-- better to post reminders to discussion board, or send a group email?

**BjB** pushes Fursey

**FurseyM**: and try to implement some of the resources.

**BjB** : by posting to the discussion board you automatically send an email to all members of this group, Jen

**JenniferMF**: Hopefully it won't be too steep. Would hate for two group members to exhaust themselves =)

**FurseyM** takes out climbing gear.

**JenniferMF**: OK, BJ. Thanks.

**BjB** chuckles.

**FurseyM**: Thank you all.

**BjB** : ok, Jen, the next BirdSleuth discussion will be on Monday, April 27

**JenniferMF**: Beverly, we'll be repeating this session on Monday nite.

**BjB** . o O ( 7pm EDT )

**JenniferMF**: Thanks for stopping by everyone.

**BjB** thinks Beverly should be done plumbing by then!

**BeverlyJ**: I will try to make it - depends on a meeting I may have to attend

**BjB** . o O ( a busy lady, Beverly! )

**FurseyM** waves goodbye.

**BjB** waves bye.

**JenniferMF**: Fursey, hope to see you in an upcoming session. I just scheduled them today, so I'll probably post tonight or tomorrow to the discussion board.

**BjB**: Thanks, Gabby for your participation and help

**JenniferMF** waves bye

**GabrielleM** ) hope I added something!

**FurseyM**: You will Jennifer. Bye.

**BjB**: any questions, Beverly?

**BeverlyJ**: are you the leader of the group?

**BjB** . o O ( I'm on Tapped In helpdesk )

**BjB**: I can take any questions about Tapped In...not much help with BirdSleuth though

**BeverlyJ**: I have a website that I run for the community and I have been adding bird photos and wondering if this is something people would be interested

**BjB**: what is the site url?

**BeverlyJ**: I always carry my camera and am learning how to find the birds

**BjB**: This might be something you could post to the discussion board, Bev

**BeverlyJ**: <http://www.chebeague.org/Chebbirds2009/index.html>

**BjB** . o O ( currently 35 members in the group )

**BjB**: oh, how cool!

**BjB**: I love that puffed up starling!

**BeverlyJ**: I think I have them correct but I have a few I haven't added and I have so many to add to the individual ones I've taken lately

**BjB**: I would definitely recommend that you post the discussion board in this group room to share your photos, Bev

**BeverlyJ**: I am determined to get my own photo of the Great Gray Owl that is in my

neighborhood

**BJB** : do you know how to do that?

**BJB** . o O ( post, not photo of owl ;- )

**BJB** : we have a couple pileated woodpeckers in our woods...they are awesome

**BeverlyJ** : I will - I finally figured out how to get photos of the pileated woodpecker - I will now just wait till I hear them talking to each other

**BJB** : they're very territorial

**BJB** : they took offense to a car we had parked out front and pecked out the side mirrors

**BeverlyJ** : This is such a fun hobby and I want to have a week camp "for the birds" this summer and am trying to learn things I could use in it

**BeverlyJ** : you must have gotten some great photos then

**BeverlyJ** : Do you live in the south

**BJB** : oh, they're sly devils....and we were both working at the time

**BJB** : I'm in Pennsylvania

**BeverlyJ** : They use to be very rare up here on the island in Maine but people are seeing them a lot more these days

**BJB** : that's nice to hear

**BeverlyJ** : how do I find the resources?

**BeverlyJ** : on this site

**BJB** : ahhh...do you see the welcome screen above this chat?

**BeverlyJ** : yes

**BJB** : scroll down to Featured Items

**BeverlyJ** : I see and then click on the links

**BJB** : just a couple links, but I assume this list will grow as the group develops

**BJB** : correct

**BeverlyJ**: thank you I will take a look and hopefully make it Monday at 7

**BjB**: great...I'll look forward to seeing you then!

**BjB** heads off to post to the K-12 Language Arts room

**BeverlyJ**: thank you do I just go to them and am signed off automatically

**BeverlyJ**: I see I can detach under actions - I'm learning

**BjB**: to log out you need to go to the top right of your screen and press the logout button

**BeverlyJ** left the room (signed off).