

### **Evaluation Summary Report**

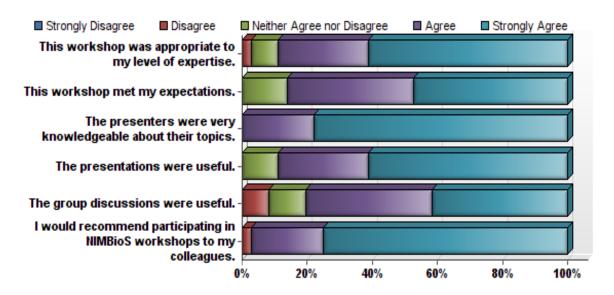
Investigative Workshop: *Animal Social Networks* 

March 6-8, 2014

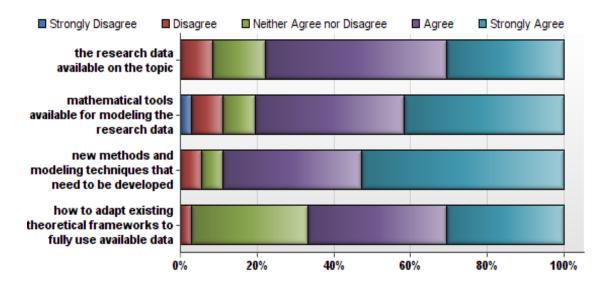
Pamela Bishop Program Evaluation Manager National Institute for Mathematical and Biological Synthesis April, 2014

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# 1. Please indicate your level of agreement with the following statements about this workshop:



### 2. As a result of participating in this workshop, I have a better understanding of:



#### 3. What do you feel was the most useful aspect of the workshop?

Understanding what the biology research questions are. 
Understanding the data collection methods.

Trying to understand the problems that the researchers in the field want to have answered.

Time to meet people in informal settings. It was a very interactive group, and we had many useful discussions.

The wrap-up meetings on the final day felt like the most productive time of the workshop. This may be in part because everyone was finally getting on the same "page".

The open discussion with other researchers was really wonderful. I thought I would hate the "everyone bring a poster" part, but it turned out to be a fantastic excuse to talk to everybody and not just the people I thought I wanted to talk to at the start.

The most useful aspects of the workshop for me were the discussion sessions and the mix of people from different backgrounds. Notably I felt there was a very good balance between a well-structured scheduled, on the one hand, while on the other hand there was also enough flexibility that allowed emergent discussions to take place. This in my opinion made the workshop particularly productive.

The interdisciplinary nature of the workshop exposed me to many new concepts, methods and ideas

The informal discussion where there were many exchange of ideas

The group discussions were the most useful, as connections were made, and disagreements and confusions were thoroughly discussed.

The group discussions were a good place to get a sense for how people grappled with both the empirical and theoretical issues important in animal social networks.

The diversity of participants was very helpful to understanding a breadth of problems with social network applications to small animal networks.

The combination of people from different backgrounds and the expertise of many of them.

The chance to meet researchers from outside my discipline.

Seeing many people known before only by name

Meeting people i never met before and having time to discuss my work with them

Meeting peers from the same field of research but in different disciplines and from different continents.

Meeting other researchers, hearing the questions they would like to answer with their data, and hearing whether the statistical models/methods are insufficient

Meeting and getting to have substantive conversations with other people in the field

Learning about the most recent advances of methodology.

I very much enjoyed hearing about other research questions, methods, and software being used in this area. I also appreciated having a mixed group.

Interacting with people face-t0-face for an extended and focused period of time

Informal discussions that occurred around meals set the agenda for future collaborations. Poster session also facilitated many discussions and was surprisingly useful--making me feel like shorter talks might have been nice and even more time for discussion would have been...perhaps this will emerge in the future working groups.

I feel that the talks were high-level, instructive and clear. I feel the discussions were not always focused

or useful

Identifying the challenges in network analysis

Hard to tell. It was useful in lots of ways.

Good pacing of talks, group discussions, and time for one-on-one/small group interactions.

Getting to meet other researchers from a range of disciplines within the field, and the discussions after the talks.

Getting to know people

Free open discussions were useful.

Discussions about what needs to be developed in term of analytical tools

Connecting with others working on similar problems, exchange of ideas, potential for new collaborations

Combination of presentations and discussions of/with diverse presenters

#### 4. What would you change about the workshop?

More structured objectives and desirable outcomes, more specific focus

Have fewer talks and more structured discussion, group work, workshoping datasets...

Less formal talks and posters. More collaborative sessions.

I think this workshop is dealing with a very immature field and so it is still figuring out what the problems are to be solved.

If you run an interdisciplinary workshop, having all organizers from one discipline leads to a very biased schedule. In this case, more statisticians, mathematicians and computer scientists should have given lectures.

An extra day would have been useful.

I would have the first day's discussions more structured (e.g. Have them center on a specific problem we are trying to solve), since that discussion ended up being too vague to be useful. On the other hand, the totally unstructured conversations around the poster session were great. So I guess I would go with either very structure or very non-structured, just not in the middle!

None.

There is nothing to change. The field of animal network analysis is just too young

Fewer talks, more breakout groups, and more direction towards to a common goal or product.

Perhaps just assign people into different groups with roughly equal numbers of empirical & theoretical researchers to develop a common language first. I think this would have been particularly useful for those that came from outside the animal behavior realm.

More concrete plans for follow-up. A large variety of breakfast options (at least fruit and oatmeal packets/bagels every morning).

I would have made it one day longer and added some time to let people break out and flesh out project details together.

The times allocated for the talks was often too little so they often over ran in practice. There is hence an argument for giving say 40 minutes per talk but I would not have wanted fewer talks as a consequence of that. I thought there was just the right number.

Perhaps a little more structure.

A clear definition of goals in terms of products at the start. I would also make the discussions more organized and structured

Discussion groups were inefficient

Perhaps have more structured time for discussions, with an aim or agenda to direct the discussion (but not too tight to allow the discussion to evolve)

More organised discussion groups on day 2

Incorporate more interaction across disciplines with specific objectives and make sure that all the participants understood the discussion and participation across disciplines was an integral part of the workshop and not an afterthought or an optional activity they could be completely changed.

An extra poster session was added on, this turned out being very useful.

For the mathematicians, I would be clearer in the individual presentations specifically why a specific quantitative method was chosen over a different method.

Include more targeted group sessions

More time for discussion and fewer talks

It would have been nice to have a way for everyone to introduce themselves and what they do, researchwise, at the beginning.

While I enjoyed the mixed group some brilliant, but out of place computational folk and mathematicians seemed to not understand why they were present and wasted a lot of time in break out discussions asking others to explain to them how this research could be applied to their field... If they did not have any clue or interest in figuring that out in advance, they should not have been present.

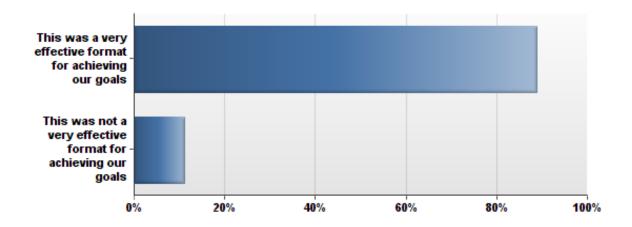
Make the 'break-out' discussion sections more organized

Probably will be good to have an initial session with some small tutorials about the methods in the talks.

I would not change anything, but I would love to see some problem-centered collaborations come out of this in which we would come back with questions and data sets and work toward analysis with a subset of examples.

Have it span more of the weekend.

### 5. How do you feel about the format of the workshop?



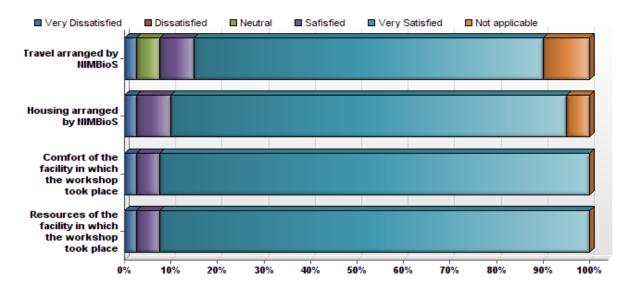
### 6. The workshop format would have been more effective if:

We had discussion that is more structured and a bit more guided by the organizers

If it had specific goals and strategic activities designed to fulfill these goals.

Included more specific goals

### 7. Please indicate your level of satisfaction with the workshop accommodations:



#### 8. Comments about accommodations:

Wonderful! I have never worked with such a nice and well organised group of admins, especially Jennifer spar! She accommodated my special needs without a problem and was very attentive and helpful.

The hotel was excellent. My flight plan had a three hour layover which seemed a bit long since earlier flights on the same airline left before mine.

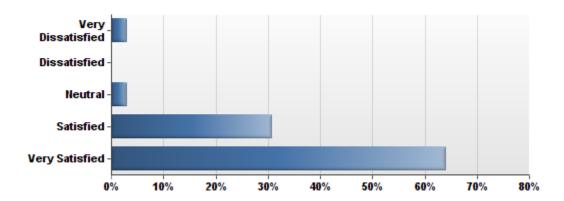
Superbly organised.

I was very impressed by NIMBioS, thanks for hosting such a great meeting!

This was all brilliant.

All the arrangements were great.

## 9. How satisfied were you with the opportunities provided during workshop presentations and discussions to ask questions and/or make comments?



## 10. Please indicate any suggestions you have for facilitating communication among participants during the workshop:

There was a lot of communication and plenty of time for asking questions at the end of talks. Perhaps arranging for dinners as well would have helped communication even further, but the self-organization of going to dinner worked well too.

Half hour slots for presentation and questions were too short.

I wish asking questions during the presentations was more accepted (and common) during the workshop as it would have helped with understanding. The culture was to wait until the end of each talk.

It was actually a little intimidating to know that the talks and the question sessions after were being recorded and broadcast. It's hard to know how much of unpublished work is 'safe' to share with an unknown audience. I guess I'm in favor of doing it, but it might facilitate richer conversation to ask each speaker to opt in instead of allowing us to opt out?

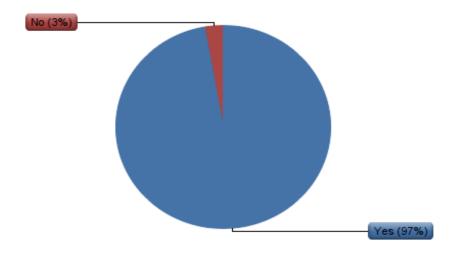
More time for discussion and fewer talks would have been useful.

I felt like there was a missed opportunity at the beginning of the first session to have everyone introduces themselves and their interest in this field.

Using the microphone for the online streaming made discussion after presentations very difficult.

Happy hour each day after talks...

# 11. Do you feel participating in the workshop helped you bett.er understand research happening in fields outside of your own?



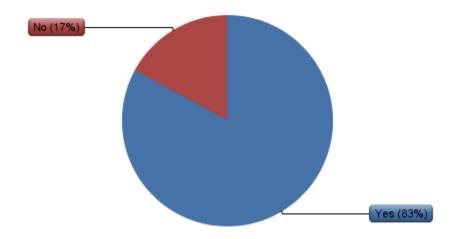
### 12. Comments regarding question 10:

Very good discussion between mathematic/physical scientists and biologists

I am a statistician working in the social sciences on social networks, so it was a great opportunity to see what people working in non-human behavior were doing (or wanted to do).

I believe that it was a very good workshop. I am starting to collaborate with some people I met in the workshop and I am now aware of different methods that I did not know they exist.

## 13. Do you feel the workshop made adequate progress toward finding a common language across disciplines for research on the workshop's topic?



#### 14. Comments regarding question 13:

Although more structured discussion would have helped

Although progress was made at the workshop, I don't think we have resolved some key issues particularly regarding network dynamics.

Progress was particularly made on the third day. An extra day would have allowed us to go deeper into this.

I think we began to develop a common language in the last small-group discussion but we ran out of time.

However some of the participants seem resistant to discussing the workshop topic or potential research that can be done in this area across disciplines.

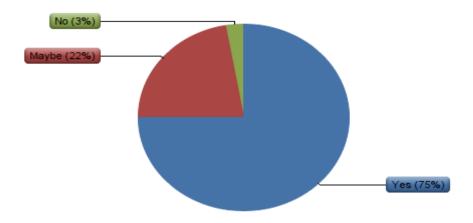
The mathematicians, applied mathematicians, and physicists seemed to have some communication issues with the biologists regarding the specifically of the research questions.

I do believe that this workshop made progress towards finding a common language, but there was no particular session that focused on this, and I certainly feel as if more work needs to be done. I realize that some people feel that there was no common language several years ago, and thus we are currently doing very well today, but I believe that there are still many ways that biologists are isolated, and continue to isolate themselves from others doing SNA.

This is difficult to determine, but there still seemed to be quite a bit of 'across-discipline' uncertainty.

It was a little bit difficult to communicate between Mathematicians and Biologists sometimes

## 15. Do you feel that the exchange of ideas that took place during the workshop will influence your future research?

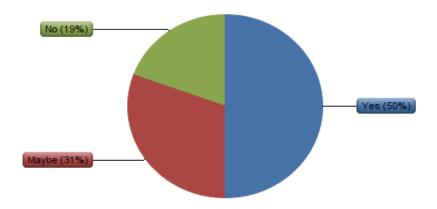


### 16. Comments regarding question 15:

This was the first workshop I've attended (I'm a post-doc), but i think it will shape my research for many years. It made me realize just how immature the field really is. We still have much work to do.

I made some new contacts through seeing what they were doing and them being exposed to some methods i have been working on. We are likely to work together in the future. More generally it made me think of the importance of taking data collection into account in the analysis and i was exposed to some methods of data collection for non-humans i was not previously aware of.

## 17. Did you develop plans for collaborative research with other workshop participants with whom you had not previously collaborated?



#### 18. Comments regarding question 17:

I've met a handful of statisticians that I could collaborate with in the future.

This was one of the most fertile workshops for developing new collaborations I have ever attended!

I am already in touch with some people I met at the workshop and there exists the possibility to collaborate.

#### 19. Additional comments:

The workshop was really great! I have a lot of potential collaborations that have started as a result of discussions at the workshop, both with researchers that I already knew and ones that I met at the workshop.

Thank you for facilitating the workshop, it was a great experience.

I am impressed by the organization support and the responsiveness of the staff (e.g., arranging streaming of the workshop, which was very helpful). In the age of complicated travel arrangements, it would be helpful for NIMBioS to have an option of travel reimbursements cap rather than reimbursing the cheapest round trip option of the complicated itinerary. The cap option is now used by NSF itself

Thanks for a great workshop!

This was a wonderful workshop! Thank you all!

This was a great opportunity. I would love to participate again in the future!

#### Thanks for the workshop

Thank you again for organizing this valuable opportunity to those interested in this area of research. I was very pleased with the workshop and gained a lot of useful knowledge. I look forward to opportunities to continue working with this group.

Many thanks for the great opportunity.