



# NIMBioS

National Institute for Mathematical  
and Biological Synthesis



## NIMBioS Interdisciplinary Seminar

**Dr. Amiyaal Ilany**  
NIMBioS Postdoctoral Fellow

**3:30 p.m.\*, Tuesday, April 2, 2013**

***Hallam Auditorium, Room 206  
Claxton Education Building, 1122 Volunteer Blvd.***

### **“Social networks in the hyrax and the hyena: from static to dynamic”**

Understanding the forces shaping the social lives of animals is a central topic in the study of evolution. Although animal sociality has been studied extensively, until recently only rudimentary tools were available for the analysis of complex social structures and their multidirectional relationships with individual traits, life history and fitness. The rise of network science in the last decade introduced advanced tools that enable us to quantify the social structure in unprecedented detail. In this talk I will describe my recent studies on the rock hyrax and the spotted hyena. First, I describe the effect of the social structure on individual longevity. Next, I show how individual preferences for specific local social structures shape the network landscape. Then, I describe how the social structure shapes sexual selection. Finally, I present an approach for modeling social network dynamics.

**\*\*Join us for refreshments at 3 p.m. *in the 1<sup>st</sup> floor visitor breakroom.***

For more information about this and other NIMBioS Seminars, visit <http://www.nimbios.org/seminars>

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