Welcome to NIMBioS!

Established in 2008 with an award from the National Science Foundation, the National Institute for Mathematical and Biological Synthesis brings together researchers from around the world to collaborate across disciplinary boundaries to find creative solutions to today's complex biological problems. The NIMBioS process and its results have united the forces of diverse academic communities, transforming the landscape of scientific research and education in the United States and the world. Read more »

“This truly was one of the best interdisciplinary workshops on sustainability that I have been to.”

Eli Fenichel, Forestry and Environmental Studies, Yale University, on the DySoC/NIMBioS Investigative Workshop Extending the Theory of Sustainability

FEATURED PUBLICATION

Scientists strategize for better conservation plans. New research published in Trends in Ecology & Evolution estimates species' niche by incorporating evolutionary information above and below the level of species. Initiated by the activities of the NIMBioS Investigative Workshop on Species' Range Shifts in a Warming World, a team of scientists reviewed three strategies for incorporating evolutionary information in niche models. The research challenges traditional practices for modeling evolutionary relationships at the species level. Learn more about this publication » View more science features »
Renowned Primatologist Frans de Waal Visits

The Center for the Dynamics of Social Complexity (DySoC) at NIMBioS welcomes world-renowned primatologist Frans de Waal for a talk next month on animal emotion and empathy ahead of his much-anticipated new book, to be published in March. Read more.

Opportunities and Announcements

XSEDE High Performance Computing Workshops are held monthly at NIMBioS on various topics. Register online.

The Spatial Analysis Lab (SAL) at NIMBioS is hosting a Brown Bag Seminar Series, UAS@UTK: Drones for Research, meeting at 12:15 p.m. in Room 206, Claxton.

Apply now for a targeted postdoctoral position in mathematical modeling of biological systems at NIMBioS and in the Fefferman Lab at the University of Tennessee at Knoxville. This is a full-time, one year position, with the potential for renewal. Review of applications will continue until the position is filled. For full details and the online application, click here.

Apply now for the NIMBioS Tutorial The Search for Selection, to be held Jun 3-5, 2019, at NIMBioS. Application deadline extended to Feb 11.

Requests for Visits to NIMBioS. NIMBioS hosts short-term supported visitors and self-supported visitors. Applications for Short-term Visits are considered 4 times a year with the following deadlines for submitting the requests: Feb 1, May 1, Aug 1 and Nov 1.


Apply now for NIMBioS' 2019 Summer Research Experiences for Undergraduates (SRE), to be held Jun 4 - Jul 26 on the campus of the Univ. of Tennessee, Knoxville. Deadline to apply: Feb 11.

Register now for the NIMBioS Tutorial, Risk Assessment Calculator Training, to be held March 5-7, 2019, at NIMBioS. Deadline to register: Feb 15, 2019

New! Check out our new Accelerator Tutorials and Innovator Workshops. We are looking for proposals for transformative research (Innovator Workshops) and proposals for innovative ideas for teaching new quantitative approaches (Accelerator Tutorials). The next deadline to submit a proposal is Apr 1.

Now at NIMBioS

Full Calendar »

Week of Feb 4-9, 2019
Recent NIMBioS Publications

Regulation of reproductive processes with Dynamic Energy Budgets

Niche estimation above and below the species level

Rootstocks shape the rhizobiome: Rhizosphere and endosphere bacterial communities in the grafted tomato system

Should I shoot or should I go? Simple rules for prey selection in multi-species hunting systems: Dietary thresholds to manage hunting

Predicting impacts of chemicals from organisms to ecosystem service delivery: A case study of endocrine disruptor effects on trout

Modeling the macrophage-anthrax spore interaction: Implications for early host-pathogen interactions

Recent NIMBioS Awards

Dynamic models for basic theory and applications in cultural evolution

Enhancing quantitative and data science education for graduate students in biomedical science at the University of Tennessee, Knoxville

Development of Peer Networks by Producing Videos Highlighting the Careers of Women in Math

Integrating Structural Theories of Revolution with Evolutionary Models to Predict Societal Resilience and (In)stability

Modeling Risk Perception, Vector-borne Diseases and Environmental Integrity: Understanding Impacts of Policy Decisions for Vector Control

Optimal Spatial Targeting of Payments for Forest-based Ecosystem Services Under Climate and Market Risks
NIMBioS Seminars

NIMBioS and the Center for the Dynamics of Social Complexity (DySoC) are hosting a series of seminars on topics related to social complexity.

Next: Thursday, Feb 14, 3:30 p.m.

Speaker: Frans B. M. de Waal, Living Links, Yerkes National Primate Research Center, Emory Univ., Atlanta, USA, and Utrecht Univ., the Netherlands

Topic: Animal emotions and empathy. Flyer (PDF)

Location: Strong Hall Auditorium 101

Report Your Results!

The results produced from NIMBioS research activities are important in measuring our success.

- Report your publications and other products resulting from NIMBioS activities.
- Acknowledging NIMBioS

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