



Yale
Program in Spatial
Biodiversity Science
and Conservation



MOL
MAP OF LIFE

Global Biodiversity Monitoring

A **futureearth** Symposium



May 4-6, 2015 | 9:00 am- 5:00pm

Greenberg Conference Center, Yale University

This YCEI sponsored symposium launches the **Future Earth** cluster on “Global Biodiversity Monitoring, Prediction and Reporting”. The cluster aims to provide a forum for interdisciplinary research activities and scientific questions associated with a globally integrated monitoring and assessment of biodiversity (species, populations, traits). Its goal is to bring together members of the observational, conservation, remote sensing and modeling communities concerned with spatiotemporally explicit biodiversity and environmental data to jointly consider the different elements of a scientifically sound and global biodiversity monitoring. The cluster hopes to provide the spatiotemporal biodiversity science needed to support Future Earth projects and goals and to complement existing observation networks and activities. Day 1 of the meeting is a public symposium (outside participants are requested to register by emailing gmba@unibas.ch with subject line “Yale symposium registration”). Days 2 and 3 are mostly focused on identifying and tackling specific joint research and synthesis opportunities and on developing a roadmap for the cluster.

Agenda Day 1 - Monday, May 4

Welcome

9:00	Walter Jetz	Welcome
	Sir Peter Crane	Welcome – Dean, Yale School of Forestry & Environmental Studies
	David Skelly	Welcome - Director, Peabody Museum Natural History
	Os Schmitz	Welcome - Director, YIBS

Setting the stage

9:20	Dennis Ojima (CSU, Boulder)	Future Earth Overview: Linking Knowledge through Observations, Research, and Decision Making
9:40	David Cooper (CBD, Montreal)	Science supporting the Convention on Biological Diversity
10:00	Eugenie Regan (WCMC, Cambridge)	Biodiversity indicators. IPBES
10:20		Coffee

The science of assessing biodiversity change I

10:35	Steve Beissinger (UC Berkeley)	Documenting species distribution change
10:55	Bradley Cardinale (U Michigan, Ann Arbor)	Is local biodiversity declining or not ... and how can we tell?
11:15	Simon Ferrier (CSIRO, Canberra)	Community models of biodiversity change
11:35	Guy Woodward (Imperial College, London)	Biodiversity change - a network perspective
11:55	Walter Jetz (Yale University)	A dynamic Map of Life: monitoring species distributions
12:15		Discussion
12:30		Lunch

The science of assessing biodiversity change II

13:30	Resit Akcakaya (Stony Brook University)	Monitoring and modelling species extinction risk
13:50	Katrin Boehning-Gaese (BiK-F, Frankfurt)	Macroecological perspectives on biodiversity change
		<u>Remote sensing biodiversity change</u>
14:10	David Schimel (JPL Pasadena, AIMES)	Observing terrestrial ecosystems and the carbon cycle from space
14:30	Michael Schaepman (U Zurich, ESA)	Characterizing forest biodiversity with remote sensing
14:50	Woody Turner (NASA)	Multi-sensor monitoring of biodiversity
15:10		Discussion
15:20		Coffee

Regional and global biodiversity observation

15:40	Mike Gill (GEO BON, Environment Canada)	Regional biodiversity observation, Arctic BON
15:55	Tet Yahara (Kyushu U, Asia BON)	Regional biodiversity observation, Asia BON
16:10	Kristina Anderson-Teixeira (Smithsonian)	Deep sampling in the tropics - CTFs/SIGEO plots
16:25	Jorge Ahumada (Conservation International)	The TEAM monitoring network
16:35	Yves Basset (Smithsonian)	How to monitor invertebrates
16:45	Christian Körner (U Basel)	Monitoring global mountain biodiversity
16:55	Jens Kattge (MPI Biogeochemistry, Jena)	Monitoring plant traits. The TRY network
17:05		Discussion
17:20		<u>Cocktail Reception</u>
		Hal Mooney (Stanford), remarks
18:30		<u>Dinner</u>
20:30		Return to hotel

Agenda Day 2 - Tuesday, May 5

Future Earth Partner Projects

9:00	Dennis Ojima (CSU, Boulder)	Future Earth projects - a brief recap
9:05	Erle Ellis (U Maryland)	GLP/IGBP
9:10	Timon McPhearson (New School)	bioSUSTAINABILITY
9:15	John Broome (CODATA)	CODATA
9:20	Michael Donoghue (Yale U)	BioGENESIS
9:25	Cornelia Krug (U Paris-Sud)	BioDISCOVERY
9:30	Joel Llopiz (Woods Hole)	IMBER
9:35		Discussion

Monitoring marine biodiversity

9:45	Ward Appeltans (IOC, UNESCO)	Marine, OBIS
9:55	Frank Muller-Karger (USF)	Remote-sensing and marine biodiversity monitoring
10:05		Discussion

Monitoring isolated habitats: rivers, lakes, mountains

10:15	Isabelle Durance (Cardiff U)	Monitoring and modelling freshwater biodiversity
10:25	Sami Domisch (Yale U)	Spatial modelling of freshwater species
10:30		Discussion
10:40		Coffee
		<u>Integrating disparate data</u>
10:55	Rob Guralnick (U Florida)	Taxonomies, infrastructure, citizen science

- Non-public portion -

Global Biodiversity Monitoring: Key science challenges and data needs

11:10 Plenary Discussion

11:40 Breakout groups

12:40 **Lunch**

Getting specific: cluster projects

13:30 Plenary Discussion: which specific topics (by taxon, habitat, scale, method...) and products (synthesis paper, online tools, ...) should we tackle?

14:00 Breakout groups

15:30 **Coffee**

15:45 Report and discuss in Plenary

16:15 Breakout groups

17:30 Brief report in Plenary

17:45 Depart for hotel

19:00 **Group dinner in town**

Agenda Day 3 - Wednesday, May 6

Toward a "Global Biodiversity Monitoring" project

9:00 Plenary discussion on how the cluster should develop

Cluster projects

9:45 Breakout groups: continued

10:30 **Coffee**

10:20 Breakout groups: continued

12:15 Report in Plenary

12:30 **Lunch**

13:00 Breakout groups: continued

15:00 **Coffee**

Synthesis and Wrap-up

15:15 Report of different break-out groups

16:15 Discussion in Plenary

16:45 Synthesis and wrap up

17:00 Depart for hotel, travel

19:00 **Dinner in town**

Registration/lodging/travel

Participation in the full symposium is by invitation only and participants will be booked to the New Haven Hotel at 229 George Street in heart of downtown New Haven, Connecticut, just steps from Yale University Campus. (<http://www.newhavenhotel.com/>). We have a block of rooms reserved for participants at the 'New Haven Hotel' (<http://www.newhavenhotel.com/>) which is in the center of town and within 10-15mins walking distance of the meeting location. Rooms (incl. breakfast, internet) are paid for, but we need to know which nights you want to stay as soon as possible.

Getting to Yale

New Haven can be reached easily from the New York City metropolitan area airports (Laguardia, JFK and Newark) and from Bradley International Airport in Hartford, Connecticut. Bradley airport is about 1 hour away by car; Laguardia and JFK, about 1.5 hours; and Newark, about 2 hours. Traffic can increase these travel times substantially. Tweed airport in New Haven is a small regional airport with flights to and from Philadelphia. New Haven is on the Amtrak rail line between Boston and New York City, and on the MetroNorth commuter rail line to New York.

For invited participants, travel expenses for lowest economy fare round class tickets and ground transportation will be reimbursed through Yale (except those who will over their travel themselves). Any travel savings will allow more workshop activities later – please select the cheapest connections and partially or fully use own funds when possible. For specific travel questions please contact Toya Sealy (+1-203-432-9857, latoya.sealy@yale.edu). Eva Spehn from GMBA (gmba@unibas.ch) will help with reimbursement. Note that certain co-invitees are not eligible for travel reimbursements.

Venue: Greenberg Conference Center

The conference venue is the Greenberg Conference Center (www.greenberg.yale.edu) in 391 Prospect Street, New Haven, CT 06511. The Center is located on the Yale Shuttle's blue line with the closest stop being Yale Divinity School (see map).

