

PRAGMA

Community of Practice in the Asia Pacific Region

An International Workshop to Develop Key
Strategies for the Establishment and
Promotion of the Asia-Pacific Biodiversity
Observation Network (AP-BON) at Local,
National, and Regional Levels
World Conservation Congress
8 September 2012

PRAGMA's Overarching Themes to Advance Collaborations

- Constructing international scientific expeditions
- Develop and improve a grassroots, international cyberinfrastructure
- Infuse new ideas through students and strategic partners
- Build and enhance the essential people-to-people trust fabric

PRAGMA

A Practical Collaborative Framework



**Strengthen Existing and Establish
New Collaborations**

**Work with Science Teams to
Advance Grid Technologies and
Improve the Underlying
Infrastructure**

In the Pacific Rim and Globally

Understanding Adaptation in Extreme Environments: A Scientific Expedition



- Advancing Science and Technology
 - Data discovery and sharing in controlled settings
 - Predicting species distribution
 - Focus: Mt Kinabalu
- First Step: 6 months
- Longer Term:
 - Satellite and Sensors
- Build people network
- Participants
 - Reed Beaman (UF), Beth Plale, Umashanthi Pavalanathan; Yuan Luo (IU), Shashir Shamshir (UTM, MY), Aimee Stewart (KU), Antony Van der Ent (UQ, AU), Yoshio Tanaka (AIST, JP)

GLEON and PRAGMA Partnership

Global Lakes Ecological Observatory Network

- Launched as a PRAGMA Expedition in 2003
- Network of People, Sensors, Data;
- Grown to more than 300 researchers
- Research: data across >40 lakes
- Active Graduate Student Assoc.



Scientific Expedition 2012

- Predicting Lake Eutrophication
 - Tracking use of shared data (provenance) to promote data sharing
 - Differentiate algal communities
 - Provide insights into the drivers of phytoplankton dynamics
- Participants
 - Paul Hanson (UW), Beth Plale (IU), GLEON Working Group – US, NZ, Korea, China, Ireland, England

Opportunity: Strategic Partnership

Complementary Approaches

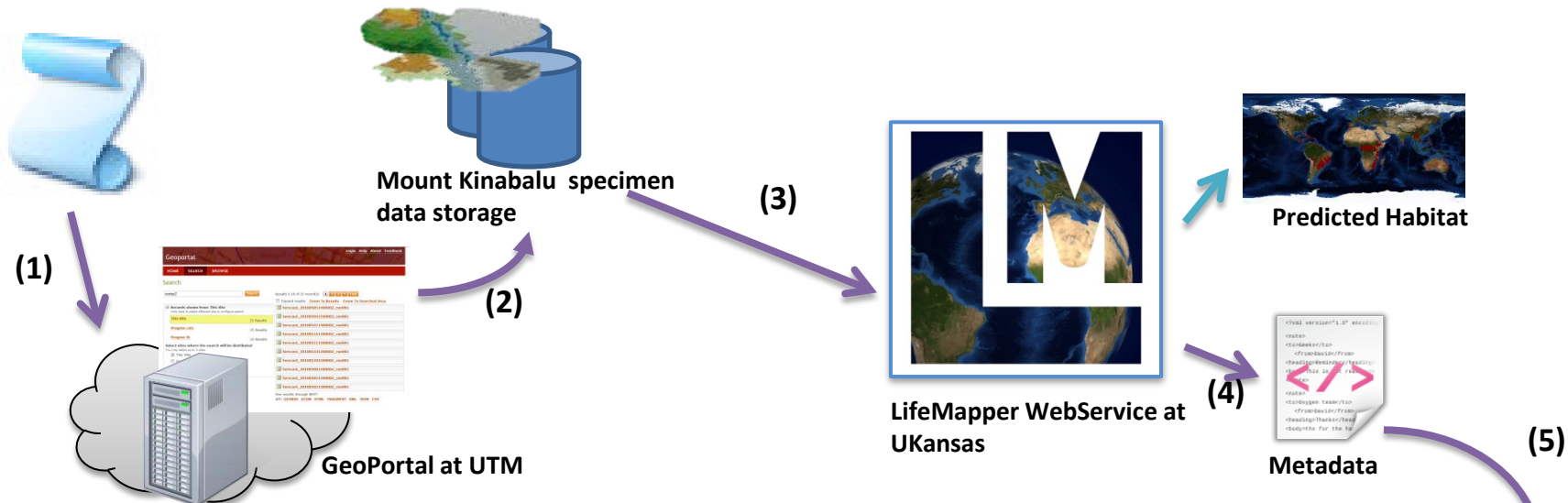
- Work through partnerships
- No central funding
- Complementary strengths
- Leverage existing people networks
- Commitment to training

Initial Steps

- Invitation to Participate in Workshop on Biodiversity, Ecosystems Services, and CI
 - 9 October 2012, Seoul
- Participate in PRAGMA and working activities
 - PRAGMA 22: 10 – 11 October, 2012, Seoul
 - PRAGMA 23: March 2013, Bangkok
- Identify Projects

Active Participation

PRAGMA Biodiversity - LifeMapper Experiment



(1) A script queries GeoPortal instance at UTM (Malaysia) to retrieve raster data

(2) Retrieves raster data from stored dataset

(3) Submit dataset to LifeMapper as occurrences/experiments

I. Prepare occurrence dataset

II. Post occurrence set

III. Post experiment

(4) LifeMapper outputs prediction result as metadata (EML)

(5) Catalogs LifeMapper predicted output metadata in GeoPortal at IU (US)



**Graduate students key to this
Scientific Expedition**