Advancing the Sharing and Synthesis of Ecological Data:

Guidelines for Data Sharing And Integration

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Barbara Benson, Dick Olson, Bill Michener
Tim Fahey, Alan Knapp, Kristin Vanderbilt
Background

• ASM2000 workshop on Partnerships
• CC meeting science theme data sets and standardization
  – LTER IM Meeting 2001 topic: Defining a procedural model for intersite research and database development
• Network of networks
Goals

• Review synthesis activities
• Explore development of standard protocols
• Review methods to harmonize data
• Evaluate barriers to the use of metadata
• Compare sources of variability in collections of data sets
• Plan for workshop 2 (QA/QC and standards)
Participants

Barbara Benson, NTL
James Brunt, NET
Tim Fahey, HBR
Alan Knapp, KNZ
Stuart Gage, KBS
Don Henshaw, AND
Bill Michener, NET
Dick Olson, ORNL
Mark Stromberg, Hastings Reserve (OBFS)
John VandeCastle, NET
Kristen Vanderbilt, SEV
Bob Waide, NET
Case Study: ANPP

Knapp et al.

- October 1999 CC meeting theme
- Primary focus: temporal variability in ANPP
- Web site search --- not much available or readily interpretable
- Email PIs and IMs
  - interest, permission, contact person
  - re-contacted (max 3 times)
- Wanted most representative, highest quality data with longest record for a single location at a site
ANPP continued …

- Wanted ancillary data (e.g., precip) --- also difficult to get
- Presented results at CC meeting for feedback and to keep people involved
- Put manuscript on line (password protected)
- Published manuscript: Knapp and Smith, *Science* 2001
- Saw patterns even though methods were not standardized
- Data set published on NET web site
  - http://intranet.ternet.edu/cgi-bin/anpp.pl
Proposed book: Principles and Standards for Measuring NPP in Long-Term Ecological Studies (Fahey and Knapp)

- Audience: non-LTER sites (e.g., ILTER, OBFS)
- Guiding principles and standards
- IM strategies/standards
- Proposal for funding for workshop to develop multi-authored book
Manuscript for Bioscience

• Philosophy/goals of synthesis
• Approaches to synthesis
  • Using cases studies to illustrate
• Principles and Procedures
  • Phases in synthesis (e.g, establish community support, obtain adequate resources, acquire data, harmonize data, produce products)
  • Authorship and ownership issues
  • Sociology of synthesis
Other Products

• “Guidelines for Synthesis” white paper
• Paper: why cooperate/archive data
  – (Stromberg et al.)
• Article for Ecological Bulletin on workshops and guidelines
  – (Olson and Benson)
• Workshop II planning
  – (Michener et al.)