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## LTER DataBits

Information Management Newsletter of  
The Long Term Ecological Research Network

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### ◆ Feature Article

## Designing a Dictionary Process: Site and Community Dictionaries

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We are exploring a strategy of unit and attribute dictionary development as a mechanism for moving toward interoperability of site data and cross-site data. We have been considering how to design a dictionary process such that the dictionaries could be shaped by existing local data procedures and guided by the LTER community standard, the Ecological Metadata language (EML). We find that dictionary building creates a shared understanding of units and attributes outside the local contexts of an individual role, a project, or a site. This work not only informs local data management but also enhances technological accessibility of data and ease of data archiving.

Although there are many aspects of units and attributes that remain to be discussed, including what constitutes a dictionary, we suggest that agreement on a shared dictionary template could provide a structure held in common from which to build. A shared dictionary would provide both a boost into the EML learning curve as well as a platform from which to bridge to alternative or related strategies including ontologies.

Although names and their definitions are seemingly mundane and even trivial concepts, this does not mean that the articulation, exchange, and blending of unit and attribute names are simple matters. Names go to the heart of local work practices and of data interoperability. A dual focused approach on local and community dictionaries would permit the LTER IM community to design and prototype a process for creating a community 'living dictionary'.

Building a dictionary takes time as it involves discussions with site

participants from technicians to researchers about the dictionary and the information it represents. Time is required for the conversations eliciting unit histories and attribute information. Further, there is an opportunity for learning through comparison with other site entries and for discussing potential site nomenclature changes. In addition, there is a question of whether the dictionary concept, if found generally useful, could create a focus for annual LTER supplements that are occasionally available.

This work evolves from discussions between LTER information managers at PAL, CCE, FCE, and GCE along with files shared by Corinna Gries (CAP) and Margaret O'Brien (SBC). The notions of a shared unit and attribute template for sites and of an LTER community dictionary process seem potential candidates for working group topics for the annual LTER IM meeting. The LTER Information Management Committee is in a unique position to consider designing a review process for proposed entries to a collective dictionary that would provide a mechanism for local names to be considered as candidates for migration to an LTER community dictionary.