

## 12.1 Introduction<sup>1</sup>

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Ethnobiology methods are undergoing a certain degree of standardization following Martin's (2004) very influential ethnobotany methods book outlining many of the basic field techniques. Translation into Chinese, Spanish, Bahasa Malaysia, and French is evidence of acceptance of this book and its role as a basic tool for learning fundamental techniques. Among its many useful chapters is one on linguistic methods. The descriptions provided in this chapter are intended to build on Martin's procedures, but add recent trends that reflect recent important changes in ethnobiological research. I begin with a discussion of some of the sorts of research ethnobiologists are doing around the globe (which takes place everywhere from modern cities to remote rural forests). This is followed by discussion of some key aspects of the discipline, in order to set the stage for the presentation of five basic field methods that may be applied to collect integrated ethnobiological and linguistic data. The primary purposes of this chapter are to provide encouragement to field linguists considering working with biological materials, and to promote collaboration among scholars, particularly linguists and ethnobiologists.

Ethnobiology is the scientific study of dynamic relationships among peoples, biota, and environments (Salick et al. 2003). This discipline has departed from being descriptive and now attempts to use the full spectrum of scientific methodologies and tools to understand and explain cultural differences and similarities in the knowledge and use of biota and environments (Balée 1994). This methodological shift has taken the discipline well beyond its original inventorying activities (Fox 1953; Diamond 1966; Conklin 1967; Bulmer and Tyler 1968) into an era of the analysis of processes. For example, recent studies have focused on:

- acquisition, distribution, and control of biological knowledge (Berkes and Folke 2001; Zent 2001; 2005; Torre-cuadros and Ross 2003; Zent and López-Zent 2004);
- ongoing management of wild and domesticated natural resources (Posey and Balée 1989; Berkes 1999; Cunningham 2001; Anderson 2005; Ticktin et al. 2006);
- management and conservation of landscapes and biocultural diversity (Sillitoe 1998; Saemane 1999; Maffi 2005; Stepp et al. 2004; Shepard et al. 2004; Lampman 2007; Hoffman 2009); and
- indigenous responses to global climate change (Bridges and McClatchey 2009; Salick et al. 2007; Turner 2009).

In addition, much attention has been paid to intellectual property rights of traditional knowledge holders, and researcher ethics and responsibilities (see Laird 2002). Ethnobiologists are examining topics that cut across the biological and social science disciplines. These have been summarized as: 'knowledge systems [including cognitive research]; medicine, health, and nutrition; ecology, evolution, and systematics; landscapes and global trends; and biocomplexity' (Salick et al. 2003: [3]). Linguistics can benefit not only from recent developments in ethnobiological techniques, but also from the advances in scientific theory being generated in the above research. Obviously this has reciprocal importance: good linguistics research not only aids an ethnobiologist or local people, it may often be a critical contribution in developing scientific and cross-cultural understanding.

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An area of past and future research cooperation between linguists and ethnobiologists is a focus on cognitive research. The next section outlines a general understanding of this area by ethnobiologists, and is presented here as a starting point for further discussion and research. This is followed by a section that focuses on basic methodological aspects of ethnobiological research, particularly as they relate to (and may be used by) linguistic researchers. Another view of this research area is seen in the analysis of thirty-four recently conducted ethnobiological studies by Reyes-García et al. (2007). They concluded that there is a 'lack