

12.2 Data Collection

Ethnobiological research design (Alexiades 1996; Höft, Barik, and Lykke 1999; Martin 2004) typically follows a hypothesis-driven scientific method of evaluation. Five common methods (see below) used by ethnobiologists for the documentation of traditional biological knowledge are likely to be of use in basic linguistic field research settings. These are used to obtain information that is associated with physical evidence. A critical aspect of these methods is that none of them requires that the researcher have more than passing knowledge about the organisms being examined (i.e. they need not be a biologist, although there is a caveat in the final paragraph of this chapter). In each case the actual organisms are the focal point and also serve as the evidence at the conclusion of the study. Local participants and their specifically local perspectives and knowledge are critical to understanding these organisms. These methods are commonly conducted as ethnographic interview surveys either within the environment (*in situ*) using biological materials or using fresh, or preserved biological materials away from the environment (*ex situ*) (Thomas et al. 2007).

12.2.1 Free-listing

A common initial approach when working with a participant is to inquire about a category of information (e.g. animals: Nolan et al. 2006; desert plants: Khasbagan and Soyolt 2008; edible mushrooms: Garibay-Orijel et al. 2007; one tree genus: McClatchey et al. 2006; wild foods: Ali-Shtayeh et al. 2008). The result is a list of details, usually names and descriptions. Free-listing may be embedded within a survey that is highly structured (Brosi et al. 2007). Although this may appear to be simple, there are many possible errors to be made in asking poorly considered questions (see Alexiades 1996; McClatchey et al. 2008) that can easily produce useless or misleading results. While it may be desirable when building a dictionary, vocabulary list, etc. to learn ‘everything’, people seem to sort information into 4 categories, and it is easier to learn from them by beginning with a question such as ‘Can we talk about the sorts of birds that you know?’ rather than ‘Can we discuss everything you know?’

- a. Decide upon a set of initial categorical ‘free-list’ questions, keeping them as simple as possible. These should be broad and simple but not leading questions. (Leading questions provide information that might be desired in possible answers.) The questions should be specific for the desired information and not waste the participant's time with other issues. Appropriate examples are: ‘Please list the names of any fish that you catch in lakes but not in streams.’ ‘Please name as many kinds of fruit (you eat/people eat/animals eat) as you can think of.’ ‘When you were a child and went to the zoo, what sorts of animals did you see there?’ ‘What kinds of ingredients does your family use in treatments for coughs and colds?’
- b. Each participant (or group of participants) is asked to list his or her answers to one question and their responses are recorded. For some kinds of research the order of the responses is important since what is recalled earlier may be of more importance than what is remembered later. If multiple questions are being asked, it is important that each participant or group be asked the same questions in the same order without other information being provided that would make comparison between participants difficult (in contrast to a free-flow text method, where participants can lead the discussion).
- c. After a participant (or group) has finished with the questions, the researcher needs to ask the participant to help to locate and collect evidential examples of each of the responses that were provided. (Note that there is a natural tendency to skip this step if terms have already been identified in the past and recorded in a word list or dictionary. However, it is exceedingly rare that these are supported by physical evidence, it is not unusual for these to be scientifically incorrect, and it is fairly common for names of organisms to refer to more than one scientific taxon and the researcher needs