

12.2.3 Environmental transect

This has sometimes been called a ‘walk in the woods’ (Phillips and Gentry 1993a). It can be a formal survey of a specific area involving repeated examination of a specific set of organisms in their natural habitat by a group of participants in order to learn their responses to specific questions (e.g. What are these things called?, Do they have uses, and if so, what?, Are there things that are usually seen here that are not here now?, What is this environment called?) There are two variations on this—formal and informal; often these variations are combined. A formal transect is a specific pathway that is set out (see below) along which repeated participants may be taken to collect different perspectives on the same set of environmental stimuli. Informally, a participant may, for example, lead a researcher on a hike through the forest, a walk through their garden, market, or grocery store, or snorkeling through a reef pointing out specific biological resources and their names and uses. For informal transects to be systematically useful and reproducible they may need to be circumscribed as area inventories (see §12.4 below).

- a. Working with one or more community participants, select a location that meets the needs of the project. A suitable site should have the ecological or taxonomic diversity that is needed to ask the questions that are planned, or it could be a trail/path through a location that needs to be better understood. For example, in order to learn about mangrove swamp organisms a boardwalk built for tourists might be selected because it allows easy, regular access for elderly participants to be able to follow along the same path and see the same locations along the way. As another example, a nylon rope could be tied between two poles fixed at points in a reef and the reef along the rope used as the transect that is to be followed and discussed.
- b. Questions are formulated about organisms, ecosystems, contexts, and other features that are encountered along the transect. Questions are associated with specific points along the transect, although sometimes general questions about frequently encountered taxa may be asked at any point along the path.
- c. Individual (or groups of) participants are led from a starting point on the transect to the finish point and asked questions at a set of points along the way. This process is repeated with each participant, recording his or her responses.
- d. Samples of the taxa being discussed need to be collected, usually after the last interview, since the objective is to collect the sample of the same individual that was being observed throughout the process. However, for taxa that are large, such as trees, or numerous, such as some insects, it is possible to collect samples in advance. ↴

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12.2.4 Area inventory

One or more discrete areas—home gardens (Vogl-Lukasser and Vogl 2004), or markets (Nguyen, Wieting, and Doherty 2008), political regions (Pardo-de-Santayana et al. 2007)—or samples of an area—forests (Castaneda and Stepp 2007), or mangrove swamps (Steele 2006)—are inventoried for either a specific category (insects, plants, soil types, ecosystems) or for all categories of knowledge possessed by the participant community managing or interacting with the area. Area inventories are done as rapid assessments (Gavin and Anderson 2005) or as more thorough longer-term analyses (Etkin 1993; Reyes-García et al. 2005).

- a. A location is selected, either randomly from within an area type or one that is typical of a particular area type. This is done with someone from the participant community who knows the area categories well. For example, if the objective is to conduct inventories of Puerto Rican markets in New York City, then a Puerto Rican community resident expert in New York City would help to identify a selection of