Forest health is a difficult concept to define. Some question its scientific value, while others believe it is a vital aspect of ecosystems management. Alan Wittbecker, in his article “The Health of Forests,” attempts to convince readers that forest health is indeed a scientific concept and help guide them toward a more tangible and useful definition.

Wittbecker covers many points in his article, which appeared in Ecoforestry. His main argument was that forest health is analogous to human health. If we can measure human wellness, he says, then we should be able to measure forest health. Wittbecker considers something to be unhealthy if it exhibits “abnormal behavior.” Therefore, he says, health is a “continuity of normal behavior.”

Although he consents that the comparison has its faults, Wittbecker says he believes the concepts of health applied to organisms can also be extended to communities and ecosystems. “Both are complex whole systems with parts and functions,” he writes. Wittbecker notes that forests are much more complex than people, and that there is no “standard society or standard forest as there is a standard human.” To compensate, Wittbecker suggests foresters measure a large number of variables, such as soil depth, nitrogen uptake, trophic flows, etc.

Wittbecker’s recognition that there is no standard forest is the precise reason why his analogy of human health and forest health is flawed. He asserts that the incongruity is only minor, when in fact it is a major inconsistency that spoils the credibility of his premise.

As different as we are, human beings are a relatively homogenous lot. Forests, however, are quite different. Not only are they diverse in structure, but they change radically through time. A forest never really dies, like humans do. It only changes. Furthermore, one can easily
graph the normal distribution of a human trait or characteristic to get some expectation of normalcy. Defining a “normal forest,” however, is an exercise in futility. Even trying to define a normal forest for one county in one state is difficult. Disturbance regimes and site conditions vary with every acre. From a scientific perspective, it is difficult to determine a “normal” forest community, when that community is frequently changed by the natural process of disturbance (Kolb et al 1994). How then, can foresters discern a continuity of normal behavior, as the author suggests? Even he duly asks if forests have ever been studied for “one forest lifetime.” (This statement begs the question of whether forests die or just change.)

Wittbecker suggests that instead of manipulating forests for our needs, we need to “watch forests and see what they do and we need to let them do it.” The way to forest health, he contends, is letting the forest do most of the choosing and working. This statement implies that if left alone, a forest will return to a normal condition. It also carries undertones of anti-management and preservationism. The problem with such a perspective is that humans inextricably impact forests. Letting a forest alone in Pennsylvania, for example, would in no way give us a clear picture of forest health or normalcy. In many areas, the forest would become one dominated by red maple (because of fire suppression) and perhaps have a limited amount of shrubs and advanced seedling regeneration (because of deer overbrowsing) (Abrams 1999). Now how does this condition help us understand a “normal” or “healthy” forest?

Wittbecker would be more convincing if he structured his forest health analogy to apply to human communities instead of individual human beings. Comparing the health of a single person to the health of an entire forest is comparable to gauging the health of an ecosystem by that of a single organism. One cannot ascertain the health of an entire forest by examining indicators from one tree. “The health of a stand must consider many more dimensions than the
health of a tree … Stand objectives such as wildlife habitat, soil and water protection and preservation of biodiversity do not require that all trees be healthy. A dead tree is not healthy, but it may be part of a healthy stand” (Kolb et al. 1994).

Wittbecker recognizes that death and disease are normal parts of a forest that do not necessarily indicate poor ecosystem health. However, he still espouses his analogy of forest health and individual human health, which is one of several contradictions in the article. Another one, for example, is when he asserts that a clear-cut, even if it has the capacity for regeneration, is not a healthy forest. In fact, he says, it is not even a forest. Later, he used a quote from Aldo Leopold to help him define health. Leopold said, “Health is the capacity of the land for self-renewal …” Incidentally, the USDA Forest Service considers renewal a major factor of forest health (More 1996). Wittbecker never followed up on Leopold’s thought nor did he put it into context with his own arguments. This pattern was a common one throughout the article. Wittbecker would draw on an ideology from an outside source, but never expressed how it related to his definition of forest health.

Wittbecker was not successful in forming an useful definition of forest health. He made many arguments and came up with numerous fragmented statements about what forest health entails. However, his failure to synthesize these thoughts and enter them into a practical context hindered his quest of articulating a clear definition of forest health.

**Literature Cited**

