Book Review

Bond, Jerry. Urban Tree Health: A Practical and Precise Estimation Method (Geneva, New York: Urban Forest Analytics, 2012). Softcover; 107 pages. Retail Price: USD $35.95.

By Jason Grabosky, associate professor, Urban Forestry, Rutgers University

In the new book, *Urban Tree Health: A Practical and Precise Estimation Method*, Dr. Jerry Bond fully establishes a sound approach for a repeatable method to observe and evaluate trees in field situations. The text organization gives a full treatment to the logic and organization of the method, which has been developed over several lectures, conferences, and publications. One of a series of volumes in the Visual Identification series through Urban Forestry, LCC, this work rests on an effective format to use concise text and clear captioning of high quality figures. The book is systematically organized with text on the left page and captioned image(s) on the facing page to lead the reader quickly through concepts and into use in the field. As a result, the concepts and approach become organizationally locked into a strict hierarchy, further helping the reader stay organized through the method's procedural steps. This technique leads to effective self-training or rapid understanding to train others. The book is printed on a durable paper with spiral binding, positioning the booklet well for use in the field. Furthermore, the business card sized "field health card" provides handy rating cues, and the data collection application further enables professionals to accept and develop the method for local use.

The book intends to provide a useful tool and the organizational framework for critical field observation. Dr. Bond is successful in this regard. Developing the ability to organize observations also enables an efficient method for experiential learning. The book provides a method that is certainly repeatable by an individual, and replication between observers is easily developed. In classes, this book's approach works as both a teaching tool to develop larger discussions and as a rapid method of developing management decision-support data. The organizational style and cogent text is also welcome, since the topic of judging tree health could easily develop into a ponderous theoretical tome with no hope of application. While the organization is presented with strict format, the author explains the underlying logic of the method and enables adjustments for more detailed observation rankings or omitted categories, if deemed necessary. However, the author uses broad categories over detailed measures for reliable, rapid, and verifiable reporting on the health condition of a tree.

There is a familiarity to this approach, given the obvious linkages to the U.S. Forest Service's Forest Inventory Analysis (FIA) protocols. Dr. Bond makes the choice to reverse some FIA observation ranking methods to keep the ranking system and interpretation of values consistent across the multiple observation categories. The result is a quickly adoptable approach and allows for clear association to large foundations of forest health literature. Additionally, there is a clear and easily integrated final determination that can be inserted into appraisal value and risk appraisal methods. Indeed, this method could also be used to refine and inform i-Tree model and value outputs with some additional attention from the research community and widespread training for inventory data collection teams. An obvious limitation in modeling would likely center on the reversal of some observation categories to simplify the health determination if FIA data and associated models are relied upon within i-Tree programs.

As a relatively new method, there is the obvious issue of developing an interpretation of the final values ascribed to any specific tree. While it enables efficient field observation and learning, there is the lack of general benchmarking to really anchor both expected values and interpretation of what values might be considered acceptable or problematic across species and growth stages within species. Time and use will provide such baselines, if there is an organized effort to do so across regions, through universities or trade organizations. Also, there is a grey area of interpretation of the Vitality score, assuming one can tell recent dieback from older dieback. With twig growth, this question points out the danger of using the method in the absence of biological training, and some additional experience, to bring to bear in the interpretation.

Although the book might benefit from tabs to provide easy section references while working through the method in early training, the book is incredibly functional and easily used by the practicing professional. It certainly provides a method for field personnel to raise their awareness and provide an objective, repeatable method for a higher level of professional practice. This book will likely generate conversation and debate, shifting the discussion on how arborists and urban forestry professionals look at trees and both judge and communicate tree health in daily operations.