

Preface

Forest structure, especially snag and down log abundance and their spatial and temporal variation, can play a major role in the suitability of habitat for wildlife. Indeed, for some species, these attributes can be more influential than successional stage or topographic variables. Besides silviculture and timber harvest *per se*, other timberland management such as mechanical site preparation, broadcast burning, and fire prevention/suppression can directly or indirectly affect the quantity, quality, and dynamics of dead wood resources.

In 1997 and 1998, as a biologist for the California Department of Forestry and Fire Protection, I was asked to review and comment on the adequacy of proposed “Sustained Yield Plans” (SYP). Under the California Forest Practice Rules, owners of large areas of timberland were required to include in these plans a description of not only how they intended to generate maximum sustained production of high quality timber products but also how they would provide for fish, wildlife, and beneficial uses of water. These plans were intended to guide management of these lands with a 100-year planning horizon. Subsequent to the approval of an SYP, individual timber harvests tied to them would likely undergo less environmental scrutiny and lighter analysis of potential cumulative impacts and mitigation. The combination of extensive areas and long time horizons of these proposals heightened the need for scientifically based review and modification, as necessary.

An early SYP submittal I reviewed from one of the large timberland owners, who exercised intensive management, prompted me to study proposed standards related to snags and down logs. Proposals for standards and the application of standards for regulations for forest management should be based on the best scientific information available, using professional judgment only to fill in holes. Additionally, under California law, standards based on the relationships of fish and wildlife species presence or abundance to management-sensitive variables carry more weight than do standards based on “reference conditions.” I was familiar with many scientific studies on the values of snags (standing dead trees) to wildlife, especially primary and secondary cavity nesting birds. A number of suggested management recommendations and approaches had been well compiled in such places as Jack Ward Thomas’ 1979 milestone *Wildlife Habitats in Managed Forests—the Blue Mountains of Oregon and Washington* and Davis and others’ (1983) *Snag Habitat Management*. These documents provided good biological information and conceptual, logic-driven models that have formed the basis for subsequent modeling efforts. With the concern about the status of anadromous salmonids growing over the last decade or two, the knowledge base for the relationship of wood in streams with fish habitat value has been expanding and some guidelines have been developed. However, as far as I knew, the relationships and modeling of down logs on the forest floor were far less well considered. Wanting to provide a solid review and recommendation, I struggled with the paucity of region-specific information on the relationships of wildlife to all forms of dead wood, but felt very uncomfortable with the paucity of down log information. Thus these were some of the motivations behind the genesis of the idea for a symposium to synthesize past efforts and pull together current research on this important topic.

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I spoke with several people about the idea, and everyone thought it would be a valuable contribution to both the resources involved as well as to the resource managers and scientists. Bill Laudenslayer of the USDA Forest Service was anxious to participate on the Technical Steering Committee and helped me identify others who might also have the expertise and connections to make it happen. The Steering Committee was formed, and consisted of Patrick Shea, Phillip Weatherspoon, Bill Laudenslayer, and Brett Harvey (Research Entomologist, Fire Ecologist, Wildlife Ecologist, and Fisheries Ecologist, respectively, Pacific Southwest Research Station [PSW], Forest Service); Gary Nakamura (Extension Forester, University of California Cooperative Extension); Dan Williams (Professor of Biology, California State University, Stanislaus); Lowell Diller (Biologist, Simpson Timber Company), and Don Owen and Brad Valentine (Entomologist and Biologist, respectively, California Department of Forestry and Fire Protection). This group met several times in Redding, California, to plan the symposium, despite the long distances necessary for some of us to travel in order to convene a meeting.

The desire of the Technical Steering Committee was to structure the symposium to promote understanding about the importance of dead wood resources in western forests, the processes that form and remove dead wood from forests, and application of management to the dead wood resource that could enable the development of scientifically-credible management recommendations. To that end, we grouped the sessions by these topics: the importance of dead wood to the forests' resources (aquatic systems, invertebrates, vertebrates, and soils); the dynamics and demography of dead wood in different forest systems; perspectives on dead wood management, and finally; guidelines for and ideas about dead wood management. To round out the information, we added preview and synthesis sessions.

The Steering Committee discussed several issues relative to the scope of the symposium. Which of the natural resources fields should we target for contributed papers and attendance, and would focusing on one field preclude participation by another? Would advertising the meeting as one directed at snags or wood in streams overwhelm and perhaps discourage submissions on down logs in terrestrial situations? Should we omit snags, since there is a more extensive history and probably current research focus on them, relative to logs? We decided to be broad-based, because we thought that focusing only on logs in the terrestrial ecosystem would result in too few submittals and perhaps miss the vital association between snags and logs. Another issue was the geographic scope. The entire Steering Committee resided in California, and one of the primary sponsoring institutions—the Western Section of The Wildlife Society—covers California and Nevada. However, we concluded that forest ecosystems across western North America were sufficiently similar that the concepts derived in one would be transferable to another; that the Steering Committee's personal contacts were wide enough that we could target invitations to provide valuable information attractive to a wide audience; and that especially with electronic communications a wide audience could be reached with symposium notices. The Steering Committee's decisions proved to be fruitful. The response to the "Call for Papers" underscored the timeliness of the topic for a symposium. The numerous submittals within the topic and geographic range necessitated concurrent sessions and interest was widespread with enquiries from Canada, Mexico, Australia, Europe, Russia, and Africa.

A very important foundation for developing a quality symposium is to invite selected speakers who can attract and energize the participants. Perhaps more

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important is that the invited speakers lend credibility to the symposium owing to their recognized expertise on the subject matter. The speakers we invited—Ann Bartuska, Robert Bilby, Evelyn Bull, Efren Cazares, Mark Harmon, Michael Haverty, Becki Heath, Paul Hennon, Lorin Hicks, Bruce Marcot, Robert Naiman, Catherine Parks, Christopher Rowney, Carl Skinner, Jack Ward Thomas, and Michael Wagner—fulfilled their roles well. Without their interest and participation, the symposium would have not been the high quality event that it turned out to be.

The Steering Committee could not accomplish all the work itself. We identified and invited other knowledgeable and capable people to act as Session Chairs. We asked the Session Chairs to not only introduce speakers and their presentations but also to run their sessions like tyrants keeping the talks on time and thus facilitating the concurrent session structure of the symposium. Far more than that, we asked Session Chairs to solicit papers for their sessions, and to review some of the manuscripts and make recommendations to the Editorial Committee regarding the quality of manuscripts for the proceedings. The Steering Committee would like to thank James Agee, Bruce Bingham, Lowell Diller, Carl Fiedler, Mark Harmon, Michael Haverty, Bruce Hostetler, Bill Laudenslayer, Thomas Lisle, Bruce Marcot, Don Own, Patrick Shea, Torolf Torgersen, Bradley Valentine, Phillip Weatherspoon, and Dan Williams for gladly assuming the extended range of Session Chair's chores.

The authors responded immediately and thoughtfully to the "Call for Papers" and followed well the manuscript guidelines, making the Editorial Committee's job that much easier. The Steering Committee placed another burden on authors that is not common in other symposia. Authors were required to have their manuscript "peer-reviewed" by two people knowledgeable in the field associated with their topic before submitting it to the Session Chairs or the Steering Committee. At least one of their reviewers had to be someone who was unrelated to their project. Finally, all technical manuscripts were reviewed by the Editorial Committee to meet publishing standards, and the PSW editorial staff provided style editing after the technical editing was completed. Technical manuscripts thus received at least three, and some received four, reviews prior to being included in the proceedings. Non-technical papers (literature reviews, perspectives, symposium introduction, and synthesis) did not undergo "peer review," but were reviewed editorially for style and content.

Bill Hull, then Executive Secretary for the Western Section of The Wildlife Society, relieved the Steering Committee of some of the logistical burden of staging a major event such as this. He negotiated and coordinated all the intricate details with the facility that hosted the conference. In addition, he managed the registration operations for the conference. He found the Atlantis Casino Resort in Reno, Nevada, to be a hospitable facility with which to work.

Four of the original Steering Committee members stayed on after the symposium to finish the task of publishing the proceedings. This "Editorial Committee"—Phillip Weatherspoon, Patrick Shea, Bradley Valentine, and Bill Laudenslayer—continued to meet and to communicate, to review manuscripts, and to prepare them for publishing. We soon realized that our group lacked the expertise to review hydrologic and aquatic manuscripts; thus, we invited Tom Lisle to participate on our Editorial Committee—a role that he graciously accepted. Bill Laudenslayer assumed the yeoman's job of chairing the Editorial Committee, one that we all wish to acknowledge.

Bradley E. Valentine, Technical Coordinator

Acknowledgments

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We thank the symposium attendees, speakers and authors, and session chairs for their interest and contributions that provided the reason for publishing this volume. We greatly appreciate the work of Bill Hull for his considerable contributions to the arrangements and the operations of the symposium. We also thank all of the reviewers of the individual papers who contributed to and improved each paper. The formatting of manuscripts by Nydia Whimberly, Sandy Hicks, and Leticia Vidrio was essential to completing the proceedings, and we greatly appreciate their contributions. We also greatly appreciate the work of Martha Shibata, who designed the proceedings cover. Finally, we owe a great debt to Laurie Dunn, who edited every paper to ensure that they read smoothly and met the formatting standards, managed the work flow process, and prepared the final page layout of the manuscripts for the proceedings. Thanks to you all!

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Technical Coordinators

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