



## **International Association of Wildland Fire**

### ***“Ember Award for Excellence in Wildland Fire Science”***

The purpose of the “Ember Award” is to recognize sustained excellence in wildland fire research and to encourage innovation, exploration, application, and dissemination of important research results. The name “Ember” reflects the fact that research and science often move slowly, and their benefits or impacts may not be apparent for years. The award was established to recognize sustained and excellent research contributions to wildland fire science, innovative solutions to important wildland fire challenges, and effective and appropriate communication of wildland fire science and research results.

#### **2006**

During the 1st Fire Behavior and Fuels conference in Portland in March, 2006, the IAWF presented the first Ember Award for excellence in wildland fire science posthumously to **Dr. Frank Albini** who was a fire behavior scientist at the Missoula Fire Sciences Lab.

#### **2007**

The International Association of Wildland Fire presented its 2<sup>nd</sup> annual Ember Award to **Dr. James K. Brown**.

Jim received his bachelor’s degree from the University of Minnesota in 1960, his master’s from Yale University in 1961, and his Ph.D. from the University of Michigan in 1968, all in Forestry. From 1961 to 1965 he did research on field measurements of fuel properties and fire-danger rating systems while with the U.S. Forest Service Lake States Forest Experiment Station in St. Paul, Minnesota. In 1965, he transferred to the Intermountain Fire Sciences Laboratory in Missoula, Montana where he conducted research on the physical properties, inventory and prediction of fuels. From 1979 through 1995 he was leader of a prescribed fire and fire effects research unit of 25 employees. His research was focused on fuel consumption, fuel hazard appraisal, fire ecology of western forests, and development of computer information systems for fuel prediction and application of prescribed fire. He has authored over 100 technical journal articles and reports. In 1992 he received the Forest Service’s Superior Science Award for his research on fuels and contributions to fire management.



*IAWF President Chuck Bushey, Dr. James K. Brown, and Elizabeth Reinhardt*

During Jim’s distinguished Forest Service career, his seminal research in fire effects, fuels, and fire behavior set the standard for many in the field. At the start of his career, fire effects science was in its infancy. Jim had the foresight to observe that fire effects are intimately linked to fire behavior so he dedicated much of his career to ensuring that the two fields of behavior and effects were closely integrated in all of his studies. Many of his findings are integrated into the complex fire behavior and effects computer models used today.

A careful scholar, a thoughtful ecologist, and an advocate for wise use of scientific information, Jim exemplifies the qualities honored by this award.

## 2010

At the 3<sup>rd</sup> **Fire Behavior and Fuels Conference** in Spokane, Washington, the International Association of Wildland Fire (IAWF) presented its *Ember Award for Excellence in Wildland Fire Science* to Noel Phillip (Phil) Cheney (CSIRO Senior Principal Research Scientist, retired; Waramanga, ACT, Australia).

Noel Phillip (Phil) Cheney is one of Australia's leading scientists in bushfire (wildland fire) research. His research has the special hallmark of application as well as good science. Much of his work involved collection of data from experimental and wildfires and the refinement of guides for prescribed burning and fire suppression. During a career extending over more than 40 years

Cheney has rendered outstanding and unique services for improving the wildland fire (bushfire) management and community safety. His achievements are wide-ranging and exemplary and include:

- World class contributions to scientific knowledge (over 50 science articles) of wildland fire behavior under the diverse environmental and ecological conditions in Australia;
- Leading the CSIRO bushfire research team for nearly 30 years during a period of development of innovative practical tools and management strategies applied by fire management authorities in all states, and continually fostered adoption;
- Initiating and conducting large scale multi-disciplinary, multi-agency fire management research projects in contrasting ecosystems designed to validate theories, develop and test complex models, and bring scientists and operational managers together in partnerships through adaptive research;
- Through the CSIRO team organizing and delivering high quality training programs for fire agencies, linking knowledge of fire behavior with strategies, protocols, manuals and custom-made videos to improve fire fighter and community safety;
- Contributing to numerous international scientific reviews, public enquiries, and submissions to governments which have cumulatively influenced policies and regulatory frameworks over many years;
- Leading major contributions to numerous government and coronial enquiries over many years, with notable recent contributions to the enquiry following the disastrous January 2003 Canberra fire and the Royal Commission following the Victorian bushfires of February 2009;
- Setting an exemplary standard in science communications and public education over many decades in response to concerns of community and media who, faced with often conflicting information, seek balanced analysis and advice every summer when Australian landscapes repeatedly come under the threat of fire.

Through dedicated contributions to public good research and highly regarded scientific publications in journals, books and reports, keynote papers, major reports to government and coronial inquiries, scholarly speeches to broad ranges of general and specific interest audiences on topics ranging from the science of fire behavior to history of fire in Australia, and innumerable contributions to public dialogue on sensitive and conflicting issues such as fuel management and prescribed burning, Cheney enjoys an eminent and un-paralleled recognition

nationally and internationally among his peers, forest management agencies in Australia, and among community at large.

Cheney has also been recognized through the award of the Australian Public Service Medal (2004) and the Norman Jolly Medal by Institute of Foresters of Australia (2003) for his outstanding services in forestry, forest and bushfire science. Cheney and his research team were awarded the CSIRO Medal for outstanding research achievements in 2003.

Cheney has been a leader in post-fire investigations and has developed an applied scientific technique to objectively reconstruct the factors associated with many significant wildfires, and has presented this information in a clear and understandable manner to Royal Commissions, Coronial Inquiries, public inquiries and in support of litigation.

Cheney has also been an important mentor to several generations of fire scientists in Australia, instilling in them high professional standards, emphasizing development of critical skills in analytical observation, thinking and writing, and, above all, ingraining an overriding sense of the need to search for the truth in a research area that is highly politicized.