

Dr. Peter W. Michael An Appreciation From the Asian Pacific Weed Science Society (APWSS)

By Dr. Nimal Chandrasena, Editor-In-Chief, APWSS



Dr. Peter Michael, an eminent Australian botanist and taxonomist, passed away recently at the age of 97 peacefully. Those of us in the *Asian-Pacific Weed Science Society* (APWSS) who knew him closely are deeply saddened by this news.

The family informed me on 6 June 2025 that Peter died peacefully on 5 June in a palliative care hospital in Sydney, with his wife Janet and his children by his side. He was 97.

"He did not suffer long and had moments of joy even in the last weeks. His mind was lucid till the end. We feel lucky he was in our lives for so many years. Warm thanks to you for your part in helping him work late in his life. We would be very grateful if you could inform the Asian-Pacific Weed Science Society and anyone else who knew him".

I and our society have lost a great friend and personal mentor, who is hard to replace. Australia, too, has lost one of its greatest modern-day plant taxonomists.

In later years, as our society launched its journal, *WEEDS*, in 2019, Peter served as both a reviewer and contributor of articles.

As the journal's Editor-in-Chief, if I had any issue regarding a botanical name or nomenclatural compliance, Peter was my advisor. I recall many instances where I sought his advice on Latin words and English expressions.

Peter was also one of the reviewers of parts of my book, *The Virtuous Weed* (published in 2023). I also often sought his views on taxonomic and nomenclatural matters. We frequently exchanged views and historical information on early botanists of the 18th and 19th Centuries.

Peter was APWSS President from 1977 to 1979 and organised the 7th APWSS Conference in Sydney. The society was formed in 1967 and is currently in its 58th year of existence. More importantly, Peter was one of the world's foremost authorities on barnyard grass (*Echinochloa* species) taxonomy.

The association Peter had with the APWSS was profound and endearing. As Peter himself stated in the article published herein, his interest in weed science began in earnest in 1967 with the first APWSS Conference:

"The inauguration of the Asian-Pacific Weed Science Society (APWSS) at the Asian-Pacific Weed Control Interchange in June 1967 coincided with the beginning of my serious interest in the taxonomy of Echinochloa. After a year in Japan in 1965 on a technical scholarship at the National Institute of Agricultural Sciences in Tokyo, where I learnt much about one form of Echinochloa, now known as E. oryzicola (tainubie in Japan), I was keen to find out whether it occurred in Australia. This led me into a field of surprises".

And it certainly did! Peter Michael spent more than 60 years of his life studying and recording barnyard grasses from around the world. He was a highly sought-after taxonomist and won the respect of a large group of taxonomists worldwide due to his expertise.

As an active member of our Society, Peter attended many APWSS conferences (it has held 28 conferences to date, spanning over 58 years). Peter's preeminent taxonomic contributions to weed science, particularly in barnyard grass taxonomy and numerous other topics related to weed ecology and management, are unparalleled within our membership.

Currently, there are 37 *Echinochloa* species accepted by the world authority, the Kew Plant List, from the Royal Botanic Gardens, Kew, in London. Of these, Peter was the naming authority of **ten species**, including many from Papua New Guinea and North and North-East Australia. Two other barnyard grasses that Peter described as new species in 2019 (i.e., *Echinochloa mentiens* and *Echinochloa trullata*) are currently under investigation by Kew taxonomists for taxonomic resolution.

One species, *Echinochloa praestans*, which Peter rightfully elevated to a species level from its previously relegated position (as a form of *E. polystachya*), has now been accepted as a distinct species.

On a personal level, he was a mentor to me since we first met at an APWSS Conference in 1985. I found him to be cultured, enlightened on all matters in society, and a warm human being. He worried about many things going wrong in modern-day Australia.

After I immigrated to Australia in 1993, I frequently visited him at his home in Epping and maintained a close friendship that lasted for 40 years. Unassuming to a fault, he was the epitome of the 'perfect gentleman'. In many ways, he was a relic of the past!

Peter never retired from research, although he did retire in 1989 from his position as a senior lecturer in weed science in the Department of Agronomy at the University of Sydney. After his retirement, he became an honorary associate at the University, and he also spent time at the Sydney Herbarium as an honorary research associate. In those days, he would assist me with plant identifications and also show me around the impressive plant collections.

When I was leading the *Botany Wetlands Ecological Restoration* project for Sydney Water, it was Peter who clarified for me the two different weedy purpletops (*Verbena* species), the dominant and widespread, common purpletop, *Verbena bonariensis* L. and *Verbena incompta* **P. W. Michael** – the latter with a narrower distribution in Australia.

I was fully aware of his other significant contributions to Australian taxonomy (especially on the Verbenaceae family) and his work at the Sydney and Mount Annan Botanic Gardens and Herbaria. His last article (published in *Telopea* in February 2025) was a clarification of *Eryngium undulatum*, a new name for the New Zealand plant long known as *E. vesiculosum*.

The Journal and our Society will miss an outstanding researcher, a world expert in taxonomy, and a mentor to many weed scientists in Australia, the Asian-Pacific region, and beyond. As we bid farewell, the APWSS extends our deepest and heartfelt condolences to his family.

As his funeral notice said, Peter will “**Forever remembered for his remarkable mind, his acceptance of everyone he met, his love of nature, and his compassion**”.

The following tributes are from other APWSS Stalwarts:

Dr. N. T. Yaduraju, Former President, Asian Pacific Weed Science Society; Former Director, ICAR-Directorate of Weed Research, Jabalpur, India

“I had the good fortune of meeting Dr Peter Michael, a noble person, during the 25th APWSS Conference held at Hyderabad, India. His simplicity and generosity touched me deeply. His knowledge of weed science was profound and practical. I want to thank Dr Nimal Chandrasena for accompanying Dr Peter Michael to the Conference and introducing him to the Indian delegates. It was memorable indeed. We cherish this memory. I pray to the Almighty to bless this noble soul with eternal peace. My deep condolences to the family”.

Dr. Adusumilli Narayana Rao, Chief Editor, *Indian Journal of Weed Science*; Former Agronomist (Weed Scientist), IRRI and Former General Secretary, APWSS (2012-2023)

Dr. Peter W. Michael is a world-renowned plant taxonomist, a global authority on the Taxonomy of *Echinochloa* spp. I became aware of the quality scientific contributions of Dr. Peter W. Michael and his work after reading his paper [Michael, P.W. (1983). Taxonomy and distribution of *Echinochloa* species with special reference to their occurrence as weeds of Rice. pp. 291-302. In: *Weed Control in Rice*. International Rice Research Institute (IRRI) and International Weed Science Society, Manila, Philippines. At that time, I was a post-doctoral fellow at IRRI, Philippines, in 1985.

As the Chairperson of the Technical Program Committee for the 25th APWSS Conference in Hyderabad, I have corresponded with him regarding his plenary presentation at that Conference. On 14 October 2015, Peter Michael gave a plenary presentation on “*Towards a better understanding of weeds in the Asian-Pacific Region*”. During the Conference, I had the privilege of communicating with Dr. Peter, listening to him, and meeting him personally. I found him to be a Plant Taxonomist with immense dedication.

I was well aware of his close friendship with Dr. Nimal Chandrasena of the APWSS and that he had persuaded Dr. Peter to attend the Conference in Hyderabad. It was an honour for the APWSS to have one of its former presidents attending and speaking.

Dr. P. Michael rightly emphasised in his plenary presentation the need for proper weed identification and stated that this task has been made easier by high-quality digital photography. It is desirable to take photographs not only of whole plants but also detailed pictures of important plant parts. He also encouraged the production of a compilation of books and monographs to aid in weed identification (Source: page 14 of Post-Conference Proceedings and Recommendations: 25th Asian-Pacific Weed Science Society Conference, Indian Society of Weed Science, ICAR-Directorate of Weed Research, Jabalpur, India). 77 p.).

Many weedy genera and individual species still require better collections and thorough taxonomic study for a deeper understanding. It is, therefore, crucial to encourage young scientists with an interest in plants to become actively involved in taxonomic studies on weeds. Additionally, there is a need for the continuation of or even expansion of University and College educational courses in taxonomic methods.

His demise is a significant loss to the Plant Taxonomists community, particularly at a time when plant taxonomists of his quality are scarce. Also, taxonomy is often given the least importance by research funding administrators. I pray to God that his soul may rest in peace. I extend my deepest condolences to his family.

Dr. Hirohiko Morita Professor Emeritus, Akita Prefectural University, Japan

I wish to express my heartfelt condolences on the passing of Dr. Peter William Michael on 5 June 2025 at the age of 97. I am deeply grateful for his kind and accurate guidance on weed science, particularly on the taxonomy of grass weeds, including *Echinochloa* species.

My friendship and association with Dr. Michael date back to 1993, when I attended the 14th APWSS Conference held in Brisbane, Australia. At this Conference, he kindly chaired my oral presentation on *Beckmannia* weed in Southern Japan.

I fondly remember Dr. Michael as an excellent plant taxonomist whose advice was invaluable to everyone. When I visited his home in Epping, I enjoyed a one-day trip to Mount Tomah Botanic Gardens in New South Wales with him and Dr. Bruce Auld on 23 September 2011 (Photo below).



On another occasion, during a private visit to Sydney on 14 August 2018, he showed me several *Echinochloa* specimens, including candidates for new species, at the Herbarium of the Sydney Botanical Gardens.

These were *E. mentiens* P. W. Michael and *E. trullata* P. W. Michael, described as *species nova* in the paper "Taxonomy of *Echinochloa* (L) Beauv. (Barnyard grass) in the Asian-Pacific Region: Un Update, Weeds 1(1):30-42, 2019.

I express my sincere respect and gratitude for his immortal achievements in weed science. I pray that Dr. P. Michael rests in peace.



Professor Eiji Tanesaka

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The photo on the left shows Peter Michael on a field trip to Macquarie Marshes, NSW, in 2008. He was assisting Dr. Eiji Tanesaka, who was on a study tour to Australia on a research grant. The following is an excerpt from the Acknowledgements published in Dr. Tanesaka's research article (see below):

"We thank Professor Peter William Michael and his daughter Diana for pinpoint guidance on the field work during this survey trip. We are again grateful to Prof Peter Michael for his kind comments, including his new opinions on Echinochloa species on the manuscript."

This research was supported by the Japanese Ministry of Education, Culture, Sports, Science and Technology, Grant-in-Aid for Scientific Research, No. 19405017."

Citation:

Tanesaka E; Ohno T; Yamaguchi H. (2010). Species diversity of the genus *Echinochloa* (Poaceae), native to eastern Australia: a focus on their habitat and the threat of exotic species. *Journal of Crop Research*, 55: 13-17 ([https://www.jstage.jst.go.jp/article/jcr/55/0/55_KJ00007114895/ article](https://www.jstage.jst.go.jp/article/jcr/55/0/55_KJ00007114895/article)).

Abstract:

The natural habitat of the *Echinochloa* species growing in eastern Australia was investigated in May 2008. In this survey, four annual native species, *E. dietrichiana*, *E. inundata*, *E. telmatophila*, and *E. turneriana*, and three exotic species, *E. colona*, *E. crus-galli*, and *E. polystachya*, were observed.

The native species clearly have separate habitats: permanent stagnant pools for *E. dietrichiana*, inland floodplains for *E. inundata*, in or beside streams for *E. telmatophila*, and inland watercourses for *E. turneriana*.

While the habitat of the exotic species greatly overlaps that of the natives, especially perennial *E. polystachya*, which forms monospecific stands in stagnant pools and in or beside flood rivers due to its remarkable productivity, and *E. crus-galli*, which has the potential to adapt to several moisture conditions. We predict that the invasive exotic *Echinochloa* species will become more and more threatening, causing serious damage to the native species within the same genus.

Dr. Iswar Chandra Barua

Retired Principal Scientist, AICRP on Weed Management, Assam Agricultural University, Jorhat, Assam, India



Peter Michael & I C Barua, at Hyderabad on 16-10-2015

“The demise of Peter Michael is a great loss to APWSS and the Weed Science community. He provided me with valuable advice, especially on my work with Echinochloa in India.

We spent several valuable and cherished moments at the 2015 APWSS Conference in Hyderabad over a four-day period.

I adore his simplicity and generosity. He will always be alive in our hearts.”

Editor’s Note:

The photo on the left shows Peter Michael’s meeting with Iswar Barua at the 2015 Hyderabad APWSS Conference.

Peter Michael can be seen examining herbarium specimens and discussing *Echinochloa* species with Dr. Barua.

Peter referred to this meeting in his article, describing two new species of *Echinochloa*

from India, published in ‘Weeds’ in 2019.

Peter had time for everyone, especially those in plant taxonomy. The APWSS was very special to him, as also stated in his article (see pp. 50-66).