OBITUARY

John Trevor Williams

(1938 - 2015)

MT Jackson and N Murthi Anishetty Bromsgrove, Worcs., UK and Hyderabad, India

John Trevor Williams, Executive Secretary and Director of the International Board for Plant Genetic Resources (IBPGR) between 1978 and 1990, passed away on 30 March 2015 at the age of 76, after a long illness.

Born in 1938 in Thingwall, Cheshire, he soon developed a life-time passion for natural history - and botany in particular – when, as a young boy, he was evacuated to the Isle of Man during the Second World War. After high school in Cheshire, Williams attended Cambridge University (at Selwyn College), graduating in 1959 with an MA in botany. After Cambridge, he joined eminent plant ecologist and population biologist Professor John Harper at the University of Wales, Bangor to complete a PhD in 1962 on the weed biology of Chenopodium L. Williams was a co-author of a paper that is regarded as one of the most significant to be published from the Harper laboratory (Harper et al., 1965). From 1964 he spent three years at the Geobotanical Institute at ETH Zurich, and was awarded the Dr sc nat degree in 1968 for his research on the nitrogen relations and ecology of wet fertilized meadows in Switzerland, southern Germany, and France. His research was supervised by geobotanist Heinz Ellenberg.

Between Bangor and Zurich, he lectured at Goldsmiths College, University of London, and after his return to the UK from Switzerland, at Lanchester Polytechnic (now Coventry University). However, in September 1969 came the move that was to make such an impact on his career and the world of genetic conservation. He was recruited by internationally-renowned genetic resources scientist and potato expert Professor Jack Hawkes to join the Department of Botany at the University of Birmingham as Lecturer and Course Tutor for the graduate MSc course on *Conservation and Utilization of Plant Genetic Resources* that saw its first intake of four students that same month. In 1976, Williams was seconded from Birmingham to FAO in Rome for two years as Genetic Resources Officer/Senior Officer in the Crop Ecology and Genetic Resources Unit that housed the recently-formed (in 1974) IBPGR, an organization funded by the Consultative Group on International Agricultural Research (CGIAR). In June 1978 he was appointed Executive Secretary of IBPGR.

In 1974, there was just a handful of genebanks or ex situ collections worldwide where germplasm could be safely stored. Furthermore, few germplasm collecting missions had been made to systematically collect germplasm from farmers' fields before it was lost forever. Under Williams' dynamic leadership, IBPGR helped many countries set up genetic resources programmes where none had previously existed, and promoted the development of an international network of genebanks. In turn, this led to demands for training and research, for technical information, and technical assistance to collect and conserve crop genetic resources. IBPGR sponsored over 800 collecting trips in 100 or more countries, with the result that almost 211,000 germplasm samples were placed in genebanks. Today, deep beneath the Arctic permafrost on the island of Spitsbergen, millions of these seeds are stored for posterity in the Svalbard Global Seed Vault (SGSV). The opening of the SGSV, popularly known as the 'Doomsday Vault', came three decades after IBPGR first proposed setting up a permafrost genebank for these important germplasm collections (IBPGR 1990, p. 10).

The opening of the Birmingham MSc course in 1969 could not have been better timed, and by the mid-1970s, IBPGR stepped in to sponsor many scholars from developing countries. IBPGR also provided financial and staffing support to the university in order to increase its capacity to accommodate such a significant increase in student numbers.

Early on, IBPGR promoted international collaboration between crop experts to form crop advisory committees and working groups to develop collecting and conservation guidelines, and under Williams' leadership published descriptor lists for 73 crops in its *Genetic Resources* of *Crops* series for the characterization of conserved germplasm, an essential first step for its successful use in crop improvement. The application of information technology and databases to manage germplasm collections was another important aspect that Williams supported as Director. Another significant development that Williams championed towards the end of the 1980s, was the IBPGR research program focusing on genetic diversity, seed physiology, germplasm health, and *in vitro* or tissue culture conservation for crops that cannot be stored as seeds.

When Williams stepped down as Director of IBPGR in February 1990, there were hundreds of genebanks or *ex situ* collections around the world. And IBPGR's research capability enabled it to evolve—in 1991—into the International Plant Genetic Resources Institute (IPGRI) independent of FAO, and after 2006 as Bioversity International.

Williams moved to Washington, DC as Director of the IFAR/IBPGR Tropical Tree Crops Program, and thus developed his involvement with bamboo and rattan as Scientific and Policy Adviser to the International Network for Bamboo and Rattan (INBAR), helping it to become an intergovernmental organization in 1997 with its headquarters in Beijing. He also took up the mantle of underutilized crops and was a founder member and Board Chair between 1998 and 2005 of the International Centre for Underutilized Crops, Southampton, UK. For many years he advised the management of and contributed to *Diversity*, a magazine published for the genetic resources community. He was a prolific writer on all aspects of genetic resources conservation and use.

Nicknamed 'The Boxer' by Birmingham students for his stocky stature and prominent eyebrows, Williams was a whirlwind of energy, an inspirational teacher and mentor, and encouraged many students to follow a career in genetic conservation. Many went on to become leaders of their own national genetic resources programmes. His legacy is enormous. He is survived by his elder sister, the Reverend Wendy Williams; he never married.

References

- Harper JL, Williams JT, Sagar GR (1965) The behavior of seed in soil. 1. The heterogeneity of soil surfaces and its role in determining the establishment of plants from seed. J. Ecol. 53: 273–286.
- IBPGR (1990) Annual Report 1990. Rome, Italy. 66 p.