# Paul Egerton Weatherley

Paul Egerton Weatherley died on 8 August 2001. He was Regius Professor of Botany in the University of Aberdeen from 1959 to 1981 and was elected to the Royal Society of Edinburgh in 1960, and to the Royal Society of London in 1973. He was one of the foremost plant scientists of his generation, and he significantly advanced our understanding of plant water relations, and the movement of water and solutes in plants.

Paul Weatherley was born in 1917 in Leicester. As a schoolboy he was fascinated by science, and soon displayed the flair for ingenious experimentation which characterised his professional life. In 1936 he won an open scholarship in Natural Science at Keble College, Oxford, where he read Botany. After graduation he joined the Colonial Service and took the Diploma course at the Imperial College of Tropical Agriculture in Trinidad. From there he was given a post in the Uganda Protectorate, but on the way to Uganda his ship was torpedoed off the west coast of Africa and Paul spent 18 hours in a lifeboat before making his way ashore. He ended up on a research station at Serere in Eastern Uganda, where he was joined by Margaret his wife. She was the daughter of a prominent Aberdeenshire farmer, and their marriage was the start of an association with North-East Scotland which was to last for the rest of his life.

In Uganda he began his research on the water relations of cotton. He was able to show that a reliable measure of plant water deficit could be obtained by punching discs from leaves, floating them on water, and measuring how much water they required to become fully turgid. This 'relative turgidity' technique became widely used to assess crop water status in the field and to inform the design of irrigation schemes.

In 1949 he was awarded a DPhil from Oxford for his work. By that time he was back in the UK as an assistant lecturer at Manchester. He moved from there to Nottingham, where he spent ten enormously productive years. His research was characterised by great originality, and by the elegance of the experimental techniques. He was one of the first to use a climatological wind tunnel to manipulate the rates of water loss by plants. By now he had also become fascinated by how the products of photosynthesis move from leaves to other parts of the plant. He and his students made ingenious use of aphids feeding on willow. These insects feed through a fine stylet, which they insert into the phloem cells through which solutes move. By excising the aphid body they were able to collect the solutes which continued to flow through the stylet, and analyse its composition.

In 1959 he moved to Aberdeen where he built up a large Department of Botany. He was an outstanding teacher and PhD supervisor, and many of the colleagues he supported and the students he trained have gone on to successful careers. He entered fully into the life of North-East Scotland, where family connections were strong. He was a talented water-colourist, and a keen hill walker.

Paul Weatherley retired in 1981. Tragically his activities were increasingly curtailed by the onset of Parkinson's disease, and his retirement was spent quietly in Torphins, cared for by Margaret and the family.

**Ian Alexander**

***Paul Egerton Weatherley DPhil, FRS: born 6 May 1917; elected FRSE 7 March 1960; died 8 August 2001.***