

Trailblazer Award for Demographic Analysis 2014

This Award was initiated by the Council of the European Association for Population Studies (EAPS). It honors outstanding achievements by an individual scholar in the development and application of the methods of demographic analysis, including mathematical and bio-demography. The Award is granted every two years at the European Population Conference.

The first Trailblazer Award was presented to dr Annette Baudisch of the Max Planck Institute for Demographic Research (MPIDR) in Rostock at the 2014 European Population Conference which convened in Budapest from 25-28 June.

2014 Trailblazer Laureate Annette Baudisch

The Jury appointed by the Council of EAPS were Graziella Caselli (chair), Francesco Billari and Frans Willekens. The Jury considered that this Award is for scholars with at least 5 years of experience after their PhD who are early/mid-career, which was interpreted to mean not yet full Professor or head of a major centre or institute. After carefully evaluating if the Rules of Play for this Award were met, including receiving the nomination from 11 scholars, the Jury unanimously decided to assign the 2014 Trailblazer Award to Dr Annette Baudisch.

The Jury remarked that Annette Baudisch' research has opened new paths for demographic analysis in mathematical bio-demography. This trailblazing is exemplified by the following five publications:

- Baudisch, A. (2005) Hamilton's indicators of the force of selection. *PNAS*
- Baudisch, A. (2008) Inevitable Senescence? *Springer monograph*.
- Baudisch, A. (2011) The pace and shape of ageing. *Methods in Ecology and Evolution*
- Baudisch, A. & J. Vaupel (2012) Getting to the root of ageing. *Science*.
- Jones, O. et al. A. Baudisch & J. Vaupel (2014) Diversity of ageing across the tree of life. *Nature*.

Her 2005, 2008 and 2012 publications focus on "What is the ultimate cause of ageing?" In these publications she overturned the canonical belief that senescence is an inevitable outcome of evolution and made a cogent theoretical case that some species might experience constant mortality and fertility with age and other species might experience declining mortality and increasing fertility with age. The *Nature* article earlier this year empirically documented this hypothesis.

The structure of the *Nature* article builds on the trailblazing distinction Baudisch made between the pace and shape of ageing. Pace is measured in units of time and can be captured by for instance life expectancy. Shape, by contrast, is dimension-less and refers to the sharpness with which death rates increase (or decrease) with age. Baudisch hypothesized that, across the tree of life, pace and shape are two independent axes of life histories. She also hypothesized, however, that pace and shape may be correlated within clades, such as primates, birds, or flowering plants—and on-going research is lending support to this.

In a paper presented at the EPC Budapest conference on "The pace and shape of causes of death" she applies her pace-shape distinction to human populations.

The Jury members consider that Annette Baudisch deserves recognition as a trailblazer in Demography.

In addition, awarding Annette Baudisch the 2014 Trailblazer Award would help to expand the fields of research for EAPS to include, as Nathan Keyfitz said, all aspects of population structure and dynamics across all populations, not just humans, thus making EAPS even more exciting as well as more inclusive.