



Trinity College Dublin

Coláiste na Tríonóide, Baile Átha Cliath

The University of Dublin

The Faculty of Engineering, Mathematics and Science

Presents the Inaugural Lecture of

Professor Yvonne Buckley

Humans and Nature: Ecology, Technology
and Landscapes of the Future

23rd March 2016



Inaugural Lectures

Inaugural lectures provide newly appointed professors with the opportunity to showcase their academic activity to the College community and members of the public. An inaugural lecture is a significant event in an academic staff member's career. In Trinity College, inaugural lectures are a ceremonial occasion; academic robes are worn by the inaugural professor and the rest of the platform party.

The Faculty of Engineering, Mathematics and Science is proud to present the inaugural lecture of Professor Yvonne Buckley, Chair of Zoology.



Introduction

Professor Yvonne Buckley is the Professor of Zoology (established 1871) at Trinity College Dublin. She is an ecologist working at the interface between ecology and human society and her research addresses fundamental questions about how plant and animal populations persist and how humans re-engineer ecosystems by accident and by design. She is the co-champion of the multidisciplinary “Smart & Sustainable Planet” research theme and an international partner of the Australian Research Council Centre of Excellence for Environmental Decisions. She leads a research group funded by Science Foundation Ireland and the EU's Horizon 2020 program. She has published over 90 journal papers and her work regularly features in the highest impact journals such as *Science* and *Nature* (five articles since joining Trinity, including an invited perspective).

Professor Buckley uses ecological discoveries to provide support for environmental decisions in the areas of biodiversity conservation, invasive species management, ecosystem service provision and habitat restoration. Her research combines data collection in the laboratory, field or from the literature, with quantitative modelling techniques that enable analysis and prediction of responses of populations to underlying drivers and manipulations. She works with local partners collecting data from field sites in the Burren, Inis Oírr, North Cork and Dublin; these data are contributed to large collaborative networks tackling ecological questions at a global scale.

Professor Buckley is committed to the development of ecology as a discipline, she is the founding chair of a learned society for ecologists in Ireland (Irish Ecological Association) and council member for the British Ecological Society and serves on editorial boards for two high impact ecology journals. She values the translation of fundamental science into policy and management action and has recently been appointed as Chair of the National Biodiversity Forum. She mentors women in higher education at all levels and has been invited to speak on this topic in the UK, Australia and Switzerland.

Professor Buckley is originally from North Cork in Ireland and received a B.A in Biology (1st class) from Oxford University and a Ph.D. from Imperial College London (2002). She has worked at Imperial College London and the University of Queensland, Australia before joining Trinity College Dublin in 2014.

School of Natural Sciences

Research in the School of Natural Sciences addresses key environmental and societal challenges facing humanity, including food security, climate change, biodiversity loss, raw materials, natural hazards, environmental conflicts and environmental governance. Researchers use tools and concepts from biological sciences, geosciences and human societal sciences to understand these challenges and design solutions. This research concerns the natural capital of biological and physical systems, how they contribute to human wellbeing, and how to design, utilize and manage these systems sustainably, from local to global scales.

The research in the School of Natural Sciences provides a fundamental link between the Faculties of Engineering, Mathematics and Science (FEMS) and Arts, Humanities and Social Sciences (AHSS) within Trinity College Dublin. The natural capital concept makes this link explicit, as the natural world is essential to human wellbeing. For example, nature is an inspiration for visual, musical and theatrical arts and art is a medium for raising awareness about natural capital. Methods for valuing natural capital can contribute to valuing cultural heritage so that it is included in decision-making and planning processes. All humans are fundamentally connected to nature; humans interact with, gain benefits from and redesign nature. The School of Natural Sciences provides a unique environment in which interdisciplinary and transdisciplinary research addressing the most fundamental challenges facing our future on the planet can be fostered and developed.

The research outputs from the School have global impact in the form of influential research, regulations, legislation, technology, infrastructure, policy advice and behavioural change. The School's researchers play leading roles on national fora (including Future Earth Ireland, Irish Forum on Natural Capital, National Biodiversity Forum, All-Ireland Pollinator Plan, Advisory Council on Climate Change) as well as international global sustainability initiatives including IPCC (Intergovernmental Panel on Climate Change) and IPBES (Intergovernmental Platform on Biodiversity and Ecosystem Services).

