The interaction of fire and mankind

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This theme issue is a result of the Royal Society scientific discussion meeting organized by Andrew C. Scott, William G. Chaloner FRS, Claire M. Belcher and Christopher I. Roos at the Royal Society, London, 14–15 September 2015.

Here, the complex interrelationships between fire and mankind that transcend international borders and disciplinary boundaries were discussed. The spectre of climate change highlighted the need to improve our understanding of these relationships across space and time. This meeting examined historical, evolutionary and biophysical tensions inherent in the fire–climate–society nexus and was intended to advance the international, interdisciplinary science necessary to address contemporary and future fire challenges.

A follow-up satellite meeting at the Royal Society Kavli Centre, Chicheley Hall, from 16 to 17 September 2015 was entitled ‘Contradiction, conflict, and compromise: addressing the many dimensions of sustainability in human–fire–climate relationships’. Broadly speaking, these include sustainability safeguards of contemporary human health, property and livelihoods without compromising those of future generations or the integrity of our environment. These dimensions have fire at their core—it is capable of threatening or enhancing them. This meeting explored the interrelationships of these four themes in the context of a fifth—climate change—with implications for socio-environmental sustainability.

The satellite meeting was organized in a series of breakout group discussions interspersed with synthetic presentations by group leaders. The aim of this structure was to interrogate the key issues relating to fire, humanity and sustainable socio-ecological relationships, first among experts in that particular domain (e.g. human health), and then among groups made up of a mix of scholars. Small group discussions focused on key gaps in knowledge and policy heuristics for adaptable consideration of sustainability issues in diverse but globally interconnected social, political, economic and environmental contexts. Finally, the meeting concluded with a plenary synthesis in which the organizers presented the conclusions of the breakout groups, highlighting key problems for future research.

The papers presented at both meetings are published here together with the summary outcomes of the three discussion groups held at Chicheley Hall and important recommendations are made concerning governance, policy and socio-ecological coexistence with fire on the Earth.