In this issue

**Satellite telemetry of an elephant**

Elephants range over hundreds or thousands of square kilometres and keeping track of individually identified animals or groups over a period of time is difficult if not impossible in tropical forests. Radio-telemetry is a commonly used tool to determine the location of an animal and has been used by wildlife biologists for over half a century for detailed studies of ecology and behaviour. Still, conventional radio-telemetry using Very High Frequency transmitters can be time-consuming, present logistic difficulties in the field and, at the end of the day, provide frustratingly little data for a biologist (though tracking animals in this manner captures much of the excitement of field biology).

The rapid development of new communications technologies has obviously brought newer options that have not been lost on wildlife biologists. Satellite-based technologies for tracking animals have been in vogue for nearly two decades. The latest among these now provide the opportunity for near real-time tracking of an animal through the internet or mobile phone technology (the trade-off being that the joys of fieldwork are somewhat dampened). To keep tabs on the movement and behaviour of a ‘rogue’ elephant, for instance, would be an irresistible attraction for a wildlife manager or biologist using such technology. In this issue (page 1827), the first such use of satellite-based technology in the country for monitoring the movements of an elephant is described. This elephant, a tusksless bull, in the Jaldapara Wildlife Sanctuary (West Bengal) had been in conflict with agriculture around the park. Information about location of this elephant was transmitted daily to the park authorities in near real-time. The authors stress that this was only an experiment to check the efficacy of the technology in tropical jungle. While signal transmission was satisfactory (until the bull managed to tear its collar after three months), use of newer Global Positioning System technology would further improve the accuracy of data. It may soon be possible for us to follow, on our computer screens, the wanderings of an elephant fitted with gadgets transmitting images as it moves through the jungle, wades across a river or surreptitiously enters a paddy field.

**Abiotic stress**

Agricultural production is affected by various kinds of abiotic stresses. Kaur and Gupta (page 1771) describe the effect of abiotic stresses on different genes and their products. The products of stress-inducible genes could either by directly protecting against these stresses or involved in regulation of gene expression and signal transduction pathways. Role of mutagen-activated protein kinase cascade, LEA type proteins, ion homeostasis, calcium and ABA-dependent signalling and their implications have been discussed. Independent actions of different signal transduction pathways with significant crosstalk among them under abiotic stresses make their understanding complex. As there could not be a single marker for abiotic stress tolerance, the authors suggest that only a defined set of molecular and biochemical markers could predict tolerance towards a particular stress.

**Quaternary climate of the Ladakh and Karakoram Himalaya**

The agro-based economy of Indian subcontinent is significantly dependent on rivers fed by the Himalayan glaciers. Moreover, the Himalayan mountain range together with the Tibetan plateau exerts strong influence on not only the Indian Summer Monsoon (ISM) but also the dynamics of the global climate system. Understanding of the Himalayan climate and monsoon history, therefore, has manifold scientific and socioeconomic importance. Mounting evidences suggest that around 10,000 yr BP (i.e. onset of the Holocene) the northern front of the ISM was situated north of Kashmir Valley, whereas at present it has retreated up to northeast of Uttaranchal Higher Himalaya. The climatic response of Ladakh and Karakoram region to retreat monsoon, however, is yet to be understood. Tectonic uplift of Himalaya and Tibetan Plateau is argued to have affected the regional as well as global climate. However, whether the upliftment and climate change are coupled processes, or whether one leads to the other, is another ongoing debate. Pant et al. (page 1789) provide the first-order framework of the Quaternary climatic events which may help evolving the methodology to generate high resolution climatic and tectonic history of the Ladakh and Karakoram Himalaya.