26 October **Kevin Gould** "....Ghosts of Indian Princes" *Allison Knight*

Kevin Gould's presentation at the 4th Baylis Lecture on 'The Remarkable Properties of Red-pigmented Plants' was more than a talk, it was a colourful performance, complete with poetry, jaunty red waistcoat and brandished umbrella for dramatic emphasis. (The ghosts of Indian princes turned out to be a quote from a poem on autumn colours, not from Indian folklore as I'd fondly imagined) First he whet our appetites with rainbows and the iridescent blue plants found by a colleague, David Lee, at the bottom of rainforests where less than 1% of available light reaches. These have a bizarre arrangement of plastids and cell walls at just the right distance apart to cause thin film interference as with oil on water – a similar mechanism to iridescent paua, butterflies, beetles and peacocks.

A glorious tour of red plants around the world followed, from tropical understorey to exposed tundra; old-growth autumn colours in the northern hemisphere and young growth in New Zealand in the south. Some of the many examples included the liverwort *Jamesoniells colorata* on Rangitoto Is, *Blechnum* spp. ferns on roadside banks, red flax, (*Phormium* sp.) *Dracophyllum latifolium*, (Neinei), North Island tree daisy, *Olearia rani* v. *rani* with red between the veins and pigeonwood, *Hedycarya arborea* with red veins. No wonder the New Zealand Maori had 75 phrases for red!

Why red? Among other things, most folivores lack red light receptors, so red leaves look dark, dead and unpalatable. Ants that culture fungi on leaves take green, not red leaves. Some frugivores are attracted by the contrast between red fruit and green leaves.

Most of the red pigments in plants are from anthocyanins, which have 4 times the antioxidant activity of vitamin C. Experiments on rats indicate useful activity in an extraordinary range of conditions. Kevin's enthusiasm is certainly contagious. Maybe that's why I've been eating more red fruit and vegetables, and can't wait to turn those rapidly ripening elderberries into jelly and syrup to see me through the winter.

2nd Annual BSO Audrey Eagle Art Awards *Allison Knight*

There were three judges for the Second Annual Botanical Society of Otago Audrey Eagle Botanical Drawing Competition; Audrey Eagle, emeritus Prof. Peter Bannister and Allison Knight. All the judges commented on the extremely high standard of all the entries – so high that the BSO committee agreed to double the total prize money, and extend it to $50 each for the second prize-winners. Entries were displayed at the Baylis Lecture and prizes presented by Audrey Eagle and Peter Bannister. First prize of $100 went to Toni Atkinson, for her extremely detailed and well-described drawing of *Cercophora ambigua*, a common wood-rotting fungus (see Original Art feature, this issue). Second equal were Kathleen Graham, with a very clear rendition of *Coprosma lucida*, and Jinty Mactavish, with her carefully observed dung fungus, *Coprinus stercoreus*. Kathleen also submitted drawings of the shrub, *Corokia cotoneaster* and hound's tongue fern, *Microsorum pustulatum*, while Mara Nydegger drew the colourful