

Gleanings

Notes on papers (some technical and others less so)
that may be of interest

Journal articles

**Opium poppy: a model system to investigate alkaloid
biosynthesis in plants**

**Fachini, P.J., Bird, D.A., Bourgault, R., Hagel, J.M., Liscombe,
D.K., McLeod, B.P., and Zulak, K.G. October 2005
Canadian Journal of Botany 83: 1189-1206**

A review article by the Dr. Peter J. Facchini (2003 Winner of the Canadian Society of Plant Physiologists, C.D. Nelson Award) and his colleagues. The paper reviews the biochemical and genetic work on *Papaver somniferum*, the opium poppy, and explains how progress with this important plant has been made using discoveries with several other, better understood plant systems (*Medicago truncatula*, *Mentha*, *Brassica*, *Catharanthus roseus*, and of course *Arabidopsis thaliana*). The authors conclude that opium poppy is the premiere model system to address the question “what makes a plant cell an alkaloid factory?”

**Diurnal cycle of sparteine production in *Lupinus arcticus*
Sharam, G.J. and Turkington, R. October 2005
Canadian Journal of Botany 83: 1345-1348**

A short note reporting that production of the neurotoxin, sparteine, by *Lupinus arcticus* is higher at night than in the day. It may be a grazing deterrent against snowshoe hares, which are night grazers.

**The biology of *Stellaria longipes* (Caryophyllaceae)
Chinnappa, C.C., Donald, G.M., Sasidharan and Emery, R.J.N.
November 2005
Canadian Journal of Botany 83: 1367-1383**

An invited review acknowledging Dr. Chinnappa's (known to all as C.C.) receipt of the Canadian Botanical Association/L'Association Botanique du Canada George Lawson Medal for his lifetime

contributions to Canadian Botany specifically for his studies of the genus *Stellaria*. The paper covers the taxonomy, genetic variability, evolution, and physiology of *S. longipes* and the effective use that C.C. and his research colleagues have made of this species as a model for the study of phenotypic plasticity.

News item

Winning the war against island invaders

Krajick, K. 2005

Science 310: 1410-1413 (December 2nd 2005)

A news feature reporting a number of projects that are mainly concerned with eradication of invasive animals. Island biota are particularly vulnerable, but in many cases there is some possibility that extermination of the invader will lead to at least partial recovery of the original ecosystem. Rats, goats, rabbits are among the animal villains whose grazing poses greatest threats to plant survival. The Channel Islands of California and Mexico, New Zealand, the Hawaiian Islands, and of course the Galápagos, have all suffered major invasions and extinctions. Some recoveries have been spectacular, but all extermination projects are fraught with risks of making the wrong decisions based on unintended consequences.