



## *Atropa bella-donna*

### Common Name(s):

deadly nightshade

### Current Threat Status (2009):

Exotic

### References and further reading:



“All parts of the plant are extremely poisonous to humans because of the presence of tropane alkaloids, including hyoscyamine and hyoscyne. These alkaloids are also found in other solanaceous genera such as *Hyoscyamus* (henbane), *Mandragora* (mandrake) and *Datura* (thorn apple). These substances interfere with the function of the parasympathetic nervous system, disrupting involuntary bodily processes. Despite its extreme toxicity, deaths from accidental nightshade poisoning are rare. Some animals appear unaffected by the toxins, perhaps explaining the plant's effective seed distribution. The presence of significant quantities of atropine in meat and honey have been reported to produce secondary poisoning in humans. Physostigmine, extracted from the Calabar bean (*Physostigma venenosum*), can be an effective antidote.

Plants producing tropane alkaloids have historical associations with murder through poisoning.

As with many extremely poisonous plants, useful medicinal extracts have been isolated from *Atropa*, including the tropane alkaloid atropine. Atropine is used to regulate heart rate and as an antidote for poisoning by organophosphates and nerve agents, such as sarin. The United States Army even provides its soldiers who are at risk from chemical weapon attacks with self-medication kits containing atropine sulphate. Most famously, atropine dilate the pupil of the eyes; during the European Renaissance it was used cosmetically, and apparently gives rise to the specific epithet *belladonna* (beautiful lady). During the nineteenth century, the use of *Atropa* in some medical preparations led to inadvertent poisoning.” <https://herbaria.plants.ox.ac.uk/bol/plants400/Profiles/AB/Atropa>



**Caption:** In cultivation at Whanganui. Mar 2013.

**Photographer:** Colin Ogle



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### For more information, visit:

[http://nzpcn.org.nz/flora\\_details.asp?ID=3484](http://nzpcn.org.nz/flora_details.asp?ID=3484)