***Family:*** ***Solanaceae***

***Taxon:*** ***Solanum glaucophyllum***

***Synonym:*** *Solanum glaucum Dunal*
*Solanum malacoxylon Sendtn.*

***Common Name:*** waxy-leaf nightshade

**Questionaire :** current 20090513 **Assessor:** Patti Clifford **Designation:** H(HPWRA)
**Status:** Assessor Approved **Data Entry Person:** Patti Clifford **WRA Score** 10

| | | | |
|---|---|---|---|
| **101** | **Is the species highly domesticated?** | **y=-3, n=0** | **n** |
| **102** | **Has the species become naturalized where grown?** | **y=1, n=-1** | |
| **103** | **Does the species have weedy races?** | **y=1, n=-1** | |
| **201** | **Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"** | **(0-low; 1-intermediate; 2-high) (See Appendix 2)** | **High** |
| **202** | **Quality of climate match data** | **(0-low; 1-intermediate; 2-high) (See Appendix 2)** | **High** |
| **203** | **Broad climate suitability (environmental versatility)** | **y=1, n=0** | **n** |
| **204** | **Native or naturalized in regions with tropical or subtropical climates** | **y=1, n=0** | **y** |
| **205** | **Does the species have a history of repeated introductions outside its natural range?** | **y=-2, ?=-1, n=0** | **n** |
| **301** | **Naturalized beyond native range** | **y = 1*multiplier (see Appendix 2), n= question 205** | |
| **302** | **Garden/amenity/disturbance weed** | **n=0, y = 1*multiplier (see Appendix 2)** | **n** |
| **303** | **Agricultural/forestry/horticultural weed** | **n=0, y = 2*multiplier (see Appendix 2)** | **y** |
| **304** | **Environmental weed** | **n=0, y = 2*multiplier (see Appendix 2)** | **n** |
| **305** | **Congeneric weed** | **n=0, y = 1*multiplier (see Appendix 2)** | **y** |
| **401** | **Produces spines, thorns or burrs** | **y=1, n=0** | **n** |
| **402** | **Allelopathic** | **y=1, n=0** | |
| **403** | **Parasitic** | **y=1, n=0** | **n** |
| **404** | **Unpalatable to grazing animals** | **y=1, n=-1** | **n** |
| **405** | **Toxic to animals** | **y=1, n=0** | **y** |
| **406** | **Host for recognized pests and pathogens** | **y=1, n=0** | |
| **407** | **Causes allergies or is otherwise toxic to humans** | **y=1, n=0** | **n** |
| **408** | **Creates a fire hazard in natural ecosystems** | **y=1, n=0** | **n** |
| **409** | **Is a shade tolerant plant at some stage of its life cycle** | **y=1, n=0** | |
| **410** | **Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)** | **y=1, n=0** | |
| **411** | **Climbing or smothering growth habit** | **y=1, n=0** | **n** |

| | | | |
|---|---|---|---|
| **412** | **Forms dense thickets** | **y=1, n=0** | **y** |
| **501** | **Aquatic** | **y=5, n=0** | **n** |
| **502** | **Grass** | **y=1, n=0** | **n** |
| **503** | **Nitrogen fixing woody plant** | **y=1, n=0** | **n** |
| **504** | **Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)** | **y=1, n=0** | **n** |
| **601** | **Evidence of substantial reproductive failure in native habitat** | **y=1, n=0** | **n** |
| **602** | **Produces viable seed** | **y=1, n=-1** | |
| **603** | **Hybridizes naturally** | **y=1, n=-1** | |
| **604** | **Self-compatible or apomictic** | **y=1, n=-1** | **n** |
| **605** | **Requires specialist pollinators** | **y=-1, n=0** | **n** |
| **606** | **Reproduction by vegetative fragmentation** | **y=1, n=-1** | **y** |
| **607** | **Minimum generative time (years)** | **1 year = 1, 2 or 3 years = 0, 4+ years = -1** | |
| **701** | **Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)** | **y=1, n=-1** | **y** |
| **702** | **Propagules dispersed intentionally by people** | **y=1, n=-1** | **y** |
| **703** | **Propagules likely to disperse as a produce contaminant** | **y=1, n=-1** | **n** |
| **704** | **Propagules adapted to wind dispersal** | **y=1, n=-1** | **n** |
| **705** | **Propagules water dispersed** | **y=1, n=-1** | **y** |
| **706** | **Propagules bird dispersed** | **y=1, n=-1** | **y** |
| **707** | **Propagules dispersed by other animals (externally)** | **y=1, n=-1** | **n** |
| **708** | **Propagules survive passage through the gut** | **y=1, n=-1** | **y** |
| **801** | **Prolific seed production (>1000/m2)** | **y=1, n=-1** | |
| **802** | **Evidence that a persistent propagule bank is formed (>1 yr)** | **y=1, n=-1** | |
| **803** | **Well controlled by herbicides** | **y=-1, n=1** | |
| **804** | **Tolerates, or benefits from, mutilation, cultivation, or fire** | **y=1, n=-1** | |
| **805** | **Effective natural enemies present locally (e.g. introduced biocontrol agents)** | **y=-1, n=1** | |

**Designation:** H(HPWRA) **WRA Score** **10**

**Supporting Data:**

| | | |
|---|---|---|
| 101 | 2010. WRA Specialist. Personal Communication. | No evidence of domestication. |
| 102 | 2010. WRA Specialist. Personal Communication. | N/A |
| 103 | 2010. WRA Specialist. Personal Communication. | N/A |
| 201 | 2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl | Native range: Brazil [s]; Bolivia; Argentina [n]; Paraguay; Uruguay. |
| 202 | 2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl | Native range: Brazil [s]; Bolivia; Argentina [n]; Paraguay; Uruguay. |
| 203 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | "Low, swampy ground at margins of marshes and ponds in seasonally inundated areas; ca. 0-600 m. " |
| 204 | 2011. USDA, ARS, National Genetic Resources Program. Germplasm Resources Information Network (GRIN) [Online Database Index]. National Germplasm Resources Laboratory, Beltsville, Maryland. http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl | Native range: Brazil [s]; Bolivia; Argentina [n]; Paraguay; Uruguay. |
| 205 | 2010. WRA Specialist. Personal Communication. | No evidence of repeated introductions. |
| 301 | 2010. WRA Specialist. Personal Communication. | Unknown. [The Global Compendium of Weeds lists Solanum glaucophylum as naturalized in Japan, but documentation is not available] |
| 302 | 2007. Randall, R.P.. Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/ | No evidence. |
| 303 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | "Solanum glaucophyllum is of economic importance mainly because it causes a disease, “enteque seco” or “espichamento,” of grazing animals. The disease is characterized by calcification of soft tissues, frequently leading to death, and has caused losses of millions of dollars annually to livestock ranchers in Argentina ." |
| 304 | 2007. Randall, R.P.. Global Compendium of Weeds - Index [Online Database]. http://www.hear.org/gcw/ | No evidence. |
| 305 | 2011. U.S. Forest Service. Weed of the week tropical soda apple Solanum viarum Dunal. WOW 03-08-05: .U.S. Forest Service, Newtown Square http://www.na.fs.fed.us/fhp/invasive_plants | Solanum viarum Dunal is "on the Federal Noxious Weed List (UUSDA NRCS). It reduces biological diversity in natural areas by displacing native plants and disrupting ecological integrity. Plant prickles can restrict wildlife grazing and create a physical barrier to animals, preventing movement through infested areas. It contains solasodine, which is poisonous to humans. This invader also serves as a host for viruses that infect important vegetable crops." |
| 401 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | No spines, thorns, burrs. |
| 402 | 2010. WRA Specialist. Personal Communication. | Unknown. |
| 403 | 2010. Nickrent, D.. The parasitic plant connection. Department of Plant Biology, Southern Illinois University, Carbondale http://www.parasiticplants.siu.edu/index.html | Not parasitic. |

| | | |
|---|---|---|
| 403 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | Not parasitic. |
| 404 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | "Solanum glaucophyllum is of economic importance mainly because it causes a disease, “enteque seco” or “espichamento,” of grazing animals. The disease is characterized by calcification of soft tissues, frequently leading to death, and has caused losses of millions of dollars annually to livestock ranchers in Argentina." |
| 405 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | "Solanum glaucophyllum is of economic importance mainly because it causes a disease, “enteque seco” or “espichamento,” of grazing animals. The disease is characterized by calcification of soft tissues, frequently leading to death, and has caused losses of millions of dollars annually to livestock ranchers in Argentina." |
| 406 | 2010. WRA Specialist. Personal Communication. | Unknown. |
| 407 | 2010. National Center for Biotechnology Information. PubMed. U.S. National Library of Medicine, Bethesda, Maryland http://www.ncbi.nlm.nih.gov/sites/entrez | No evidence of toxicity or allergenic effects on humans. |
| 407 | 2010. Specialized Information Services, U.S. National Library of Medicine. TOXNET Toxicology Data Network [Online Database]. National Institutes of Health, http://toxnet.nlm.nih.gov/ | No evidence of toxicity or allergenic effects on humans. |
| 408 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | "Low, swampy ground at margins of marshes and ponds in seasonally inundated areas; ca. 0-600 m. " |
| 409 | 2010. WRA Specialist. Personal Communication. | Unknown. |
| 410 | 2010. WRA Specialist. Personal Communication. | Unknown. |
| 411 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | "Rhizomatous shrubs or slender treelets ca. 0.5-4 m tall." |
| 412 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | "This species grows commonly in flooded or swampy ground, where it forms thickets, known as “varillales” or “duraznillales”, of virgate stems from spreading rhizomes" |
| 501 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | Terrestrial. |
| 502 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | Solanaceae. |
| 503 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | Solanaceae. |
| 504 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | Not a geophyte. [rhizomatous roots] |

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|---|---|---|
| 601 | 2010. WRA Specialist. Personal Communication. | No evidence. |
| 603 | 2010. WRA Specialist. Personal Communication. | Unknown. |
| 604 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | Self-incompatible.. |
| 605 | 2004. Passarelli, L./Bruzzone, L.. Significance of floral colour and scent in three Solanum sect. Cyphomandropsis species (Solanaceae) with different floral rewards. Australian Journal of Botany. 52: 659-667. | In this study on pollination and flower color, Augochloropsts sp. And Bombus atratus were the species most of recorded as pollinators of Solanum glaucophyllum. |
| 606 | 2011. Wikipedia.org. Solanum glaucophyllum. http://en.wikipedia.org/wiki/Solanum_glaucophyllum | Solanum glaucophyllum propagates vegetatively by gemmiferous roots of high regeneration capacity in water-saturated soils like edges of lakes. |
| 607 | 2010. WRA Specialist. Personal Communication. | Unknown. |
| 701 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | "Solanum glaucophyllum is of economic importance mainly because it causes a disease, “enteque seco” or “espichamento,” of grazing animals. The disease is characterized by calcification of soft tissues, frequently leading to death, and has caused losses of millions of dollars annually to livestock ranchers in Argentina ." [pasture lands] |
| 702 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | "Solanum glaucophyllum was cultivated in French botanical gardens at Angers, Hyeres, and Dijon in the mid-nineteenth and early twentieth century, and specimens are also known from Japan, Nepal, and the United States (Pensacola, Florida). It is not known whether the Asian plants were cultivated or adventive, but probably at least the Nepal collection was a deliberate introduction. D’Arcy (1974) speculates that S. glaucophyllum was introduced to Florida in ships’ ballast. It has not been collected from Florida since 1901." |
| 703 | 2010. WRA Specialist. Personal Communication. | No evidence of produce contamination. |
| 704 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | Fruits are water and bird dispersed. |
| 705 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | Fruits are water and bird dispersed. |
| 706 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | Fruits are water and bird dispersed. |
| 707 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | Fruits are water and bird dispersed. |
| 708 | 2011. Bohs, L.. Solanum glaucophyllum Desf. In Solancaceae source. Solanaceae Source, http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=2679 | Fruits are bird dispersed. |
| 801 | 2010. WRA Specialist. Personal Communication. | Unknown. |
| 802 | 2010. WRA Specialist. Personal Communication. | Unknown. |
| 803 | 2010. WRA Specialist. Personal Communication. | Unknown. |

804 2010. WRA Specialist. Personal Communication. Unknown.

805 2010. WRA Specialist. Personal Communication. Unknown.