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| Taxon: <i>Eustrephus latifolius</i> R. Br. | Family: Asparagaceae |
| Common Name(s): orangevine wombat-berry | Synonym(s): <i>Eustrephus amplexifolius</i> Schnizl. <i>Eustrephus angustifolius</i> R.Br. <i>Eustrephus leucanthus</i> Hassk. <i>Eustrephus watsonianus</i> Miq. <i>Geitonoplesium angustifolium</i> (R.Br.) <i>Luzuriaga angustifolia</i> (R.Br.) Poir. <i>Luzuriaga latifolia</i> (R.Br.) Poir. |

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|--------------------------------|----------------------------------|------------------------------|
| Assessor: Chuck Chimera | Status: Assessor Approved | End Date: 16 Jul 2020 |
| WRA Score: 6.0 | Designation: H(HPWRA) | Rating: High Risk |

Keywords: Tropical Vine, Naturalized Elsewhere, Tuberos, Bird-Dispersed, Resprouter

| Qsn # | Question | Answer Option | Answer |
|-------|---|--|--------|
| 101 | Is the species highly domesticated? | y=-3, n=0 | n |
| 102 | Has the species become naturalized where grown? | | |
| 103 | Does the species have weedy races? | | |
| 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 | y |
| 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 | ? |
| 301 | Naturalized beyond native range | y = 1*multiplier (see Appendix 2), n= question 205 | y |
| 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) | n |
| 304 | Environmental weed | n=0, y = 2*multiplier (see Appendix 2) | n |
| 305 | Congeneric weed | n=0, y = 1*multiplier (see Appendix 2) | n |
| 401 | Produces spines, thorns or burrs | y=1, n=0 | n |
| 402 | Allelopathic | | |
| 403 | Parasitic | y=1, n=0 | n |
| 404 | Unpalatable to grazing animals | | |
| 405 | Toxic to animals | y=1, n=0 | n |

| Qsn # | Question | Answer Option | Answer |
|-------|--|---|--------|
| 406 | Host for recognized pests and pathogens | | |
| 407 | Causes allergies or is otherwise toxic to humans | y=1, n=0 | n |
| 408 | Creates a fire hazard in natural ecosystems | | |
| 409 | Is a shade tolerant plant at some stage of its life cycle | y=1, n=0 | y |
| 410 | Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island) | y=1, n=0 | y |
| 411 | Climbing or smothering growth habit | y=1, n=0 | y |
| 412 | Forms dense thickets | y=1, n=0 | n |
| 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 | y |
| 601 | Evidence of substantial reproductive failure in native habitat | y=1, n=0 | n |
| 602 | Produces viable seed | y=1, n=-1 | y |
| 603 | Hybridizes naturally | y=1, n=-1 | n |
| 604 | Self-compatible or apomictic | | |
| 605 | Requires specialist pollinators | y=-1, n=0 | n |
| 606 | Reproduction by vegetative fragmentation | y=1, n=-1 | n |
| 607 | Minimum generative time (years) | 1 year = 1, 2 or 3 years = 0, 4+ years = -1 | >3 |
| 701 | Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas) | y=1, n=-1 | n |
| 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 | | |
| 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/m ²) | | |
| 802 | Evidence that a persistent propagule bank is formed (>1 yr) | | |
| 803 | Well controlled by herbicides | | |
| 804 | Tolerates, or benefits from, mutilation, cultivation, or fire | y=1, n=-1 | y |
| 805 | Effective natural enemies present locally (e.g. introduced biocontrol agents) | | |

Supporting Data:

| Qsn # | Question | Answer |
|-------|--|---|
| 101 | Is the species highly domesticated? | n |
| | Source(s) | Notes |
| | Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume III. Flowering plants, Monocotyledons: Liliales (except Orchidaceae). Springer-Verlag, Berlin, Heidelberg, New York | "Only one, very variable sp., <i>E. latifolius</i> R. Br. in Ker Gawl. from E Australia, extending to New Guinea, New Caledonia and the Pacific Islands; naturalised on Java." [No evidence of domestication] |
| 102 | Has the species become naturalized where grown? | |
| | Source(s) | Notes |
| | WRA Specialist. (2020). Personal Communication | NA |
| 103 | Does the species have weedy races? | |
| | Source(s) | Notes |
| | WRA Specialist. (2020). Personal Communication | NA |
| 201 | Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical" | High |
| | Source(s) | Notes |
| | Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume III. Flowering plants, Monocotyledons: Liliales (except Orchidaceae). Springer-Verlag, Berlin, Heidelberg, New York | "Only one, very variable sp., <i>E. latifolius</i> R. Br. in Ker Gawl. from E Australia, extending to New Guinea, New Caledonia and the Pacific Islands; naturalised on Java." |
| 202 | Quality of climate match data | High |
| | Source(s) | Notes |
| | Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume III. Flowering plants, Monocotyledons: Liliales (except Orchidaceae). Springer-Verlag, Berlin, Heidelberg, New York | |
| 203 | Broad climate suitability (environmental versatility) | y |
| | Source(s) | Notes |
| | Australian Native Plant Society, (2020). <i>Eustrephus latifolius</i> . http://anpsa.org.au/e-lat.html . [Accessed 15 Jul 2020] | "Wombat berry is hardy in a range of soils and climates and is best if grown in a semi shaded position. It tolerates extended periods of dryness once established." |
| 204 | Native or naturalized in regions with tropical or subtropical climates | y |
| | Source(s) | Notes |

| Qsn # | Question | Answer |
|-------|--|--|
| | Laferrière, J. (1995). Nomenclature and type specimens in <i>Eustrephus</i> R.Br. and <i>Geitonoplesium</i> Hook. (<i>Geitonoplesiaceae</i>). <i>Austrobaileya</i> , 4(3), 391-399 | "A single species, native to eastern Australia, Melanesia, and eastern Indonesia." |
| | Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume III. Flowering plants, Monocotyledons: Liliales (except Orchidaceae). Springer-Verlag, Berlin, Heidelberg, New York | "Only one, very variable sp., <i>E. latifolius</i> R. Br. in Ker Gawl. from E Australia, extending to New Guinea, New Caledonia and the Pacific Islands; naturalised on Java." |

| 205 | Does the species have a history of repeated introductions outside its natural range? | ? |
|-----|--|--|
| | Source(s) | Notes |
| | WRA Specialist. (2020). Personal Communication | Commonly cultivated within native range, and cultivated to an unknown extent elsewhere |
| | Plants for a Future. (2020). <i>Eustrephus latifolius</i> . https://pfaf.org . [Accessed 16 Jul 2020] | Cultivated in UK |

| 301 | Naturalized beyond native range | y |
|-----|---|--|
| | Source(s) | Notes |
| | Ogle, C. C., & La Cock, G. D. (2019). Additional records and observations of monocotyledons naturalised or casual in Manawatu Ecological Region, New Zealand, 1980–2019. <i>Perspectives in Biosecurity</i> , 4, 6–32 | " <i>Eustrephus latifolius</i> R.Br. wombat vine NEW RECORD: CHR 526566, C. C. Ogle 6560, C. R. Higgle, N. A. Higgle & R. C. Ogle, 4 March 2018, Whanganui, Fordell, Pöhutukawa Lane, Paloma Gardens. NOTES: Cultivation Escape. Planted beside a garden fence and seedlings were common nearby. The original plant was purchased in about 2008, under the incorrect name of <i>Heteropterys angustifolia</i> , and seedlings were not seen until 2018." |
| | New Zealand Plant Conservation Network. (2020). Flora Species - <i>Eustrephus latifolius</i> . https://www.nzpcn.org.nz . [Accessed 16 Jul 2020] | "In NZ first recorded as naturalising near a planted specimen in a large garden in March 2018" |
| | Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume III. Flowering plants, Monocotyledons: Liliales (except Orchidaceae). Springer-Verlag, Berlin, Heidelberg, New York | "Only one, very variable sp., <i>E. latifolius</i> R. Br. in Ker Gawl. from E Australia, extending to New Guinea, New Caledonia and the Pacific Islands; naturalised on Java." |

| 302 | Garden/amenity/disturbance weed | n |
|-----|---|---|
| | Source(s) | Notes |
| | Australian Native Plant Society, (2020). <i>Eustrephus latifolius</i> . http://anpsa.org.au/e-lat.html . [Accessed 16 Jul 2020] | "It is not excessively vigorous and is unlikely to become a problem by smothering other plants." [No evidence] |
| | Dengarden. (2020). Australian Native Plant Profile: Wombat Berry (<i>Eustrephus latifolius</i>). https://dengarden.com . [Accessed 16 Jul 2020] | "Wombat berry is likely to be out-competed by more vigorous plants and as such should not be planted where it may be over-run by other more vigorous climbers or groundcovers." |
| | Randall, R.P. (2017). <i>A Global Compendium of Weeds</i> . 3rd Edition. Perth, Western Australia. R.P. Randall | No evidence |

| 303 | Agricultural/forestry/horticultural weed | n |
|-----|--|---|
|-----|--|---|

| Qsn # | Question | Answer |
|-------|---|--------------|
| | Source(s) | Notes |
| | Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall | No evidence |

| 304 | Environmental weed | n |
|-----|--|--|
| | Source(s) | Notes |
| | Australian Native Plant Society, (2020). <i>Eustrephus latifolius</i> . http://anpsa.org.au/e-lat.html . [Accessed 15 Jul 2020] | "It is not excessively vigorous and is unlikely to become a problem by smothering other plants." |
| | Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall | No evidence |

| 305 | Congeneric weed | n |
|-----|---|--|
| | Source(s) | Notes |
| | Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume III. Flowering plants, Monocotyledons: Liliaceae (except Orchidaceae). Springer-Verlag, Berlin, Heidelberg, New York | "Only one, very variable sp., <i>E. latifolius</i> R. Br. in Ker Gawl. from E Australia, extending to New Guinea, New Caledonia and the Pacific Islands; naturalised on Java. Although there is a single species, because of its wide range and morphological variability, numerous infraspecific taxa were described by Schlittler (1951). Studies by Conran (1987) and Laferriere (1995) did not support the retention of any of Schlittler's taxa." |

| 401 | Produces spines, thorns or burrs | n |
|-----|--|---|
| | Source(s) | Notes |
| | Laferrière, J. (1995). Nomenclature and type specimens in <i>Eustrephus</i> R.Br. and <i>Geitonoplesium</i> Hook. (<i>Geitonoplesiaceae</i>). <i>Austrobaileya</i> , 4(3), 391-399 | [No evidence] "Small shrubs or twining climbers, 1-5 m tall. Roots fusiform, sometimes tuberous. Leaves non-resupinate, sessile or nearly so, broadly ovate to lanceolate or narrowly linear, 2-20 cm long, 0.2-5.0 cm wide, firm, longitudinally striate-nerved, with costae scarcely distinct; apex usually acute. Inflorescence an axillary cymose bundle with 1---6 flowers; pedicels filiform but rigid, persistent, 5-18 mm long, with an ovate bract at the base, these scarious and imbricate." |

| 402 | Allelopathic | n |
|-----|--|----------------------------|
| | Source(s) | Notes |
| | WRA Specialist. (2020). Personal Communication | Unknown. No evidence found |

| 403 | Parasitic | n |
|-----|--|---|
| | Source(s) | Notes |
| | Laferrière, J. (1995). Nomenclature and type specimens in <i>Eustrephus</i> R.Br. and <i>Geitonoplesium</i> Hook. (<i>Geitonoplesiaceae</i>). <i>Austrobaileya</i> , 4(3), 391-399 | "Small shrubs or twining climbers, 1-5 m tall." [No evidence] |

| 404 | Unpalatable to grazing animals | n |
|-----|--------------------------------|---|
| | | |

| Qsn # | Question | Answer |
|-------|---|--|
| | Source(s) | Notes |
| | Gardening With Angus. (2020). <i>Eustrephus latifolius</i> – Wombat Berry. https://www.gardeningwithangus.com.au . [Accessed 15 Jul 2020] | "Birds like the berries, and the tuberous roots are eaten by creatures such as wombats, hence the common name." [Palatability of foliage unknown] |
| | Moreton Bay Regional Council. (2010). Vines of the Moreton Bay Region. www.moretonbay.qld.gov.au | "Wombat Berry (<i>Eustrephus latifolius</i>) Weak climber. Similar to Scrambling Lily but has no mid-vein. Coils right to left (clockwise). The orange-coloured fruit is food for birds." [Palatability of foliage unknown] |
| | Dexter, N., Hudson, M., James, S., MacGregor, C., & Lindenmayer, D. B. (2013). Unintended consequences of invasive predator control in an Australian forest: overabundant wallabies and vegetation change. <i>PLoS One</i> , 8(8), e69087 | [Present in browsed plots, suggesting it may be unpalatable to wallabies] "A total of 70 species was detected during the vegetation surveys with 62 species recorded in the unbrowsed plots and 62 species detected in the browsed plots. Species detected only in browsed plots were <i>Centaurium erythraea</i> , <i>Ehrharta erecta</i> , <i>Eustrephus latifolius</i> , <i>Lagenifera stipitata</i> , <i>Persoonia linearis</i> , <i>Pratia purpurascens</i> and <i>Wahlenbergia gracilis</i> . These species tended to be small herbs or grasses (except <i>P. linearis</i> and <i>E.latifolius</i>)." |

| 405 | Toxic to animals | n |
|-----|---|---|
| | Source(s) | Notes |
| | Gardening With Angus. (2020). <i>Eustrephus latifolius</i> – Wombat Berry. https://www.gardeningwithangus.com.au . [Accessed 16 Jul 2020] | "Birds like the berries, and the tuberous roots are eaten by creatures such as wombats, hence the common name." [No evidence] |
| | Plants for a Future. (2020). <i>Eustrephus latifolius</i> . https://pfaf.org . [Accessed 16 Jul 2020] | "Known Hazards - None known" |
| | Moreton Bay Regional Council. (2010). Vines of the Moreton Bay Region. www.moretonbay.qld.gov.au | "Wombat Berry (<i>Eustrephus latifolius</i>) Weak climber. Similar to Scrambling Lily but has no mid-vein. Coils right to left (clockwise). The orange-coloured fruit is food for birds." [No evidence] |
| | Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL | No evidence |

| 406 | Host for recognized pests and pathogens | n |
|-----|---|---|
| | Source(s) | Notes |
| | Dengarden. (2020). Australian Native Plant Profile: Wombat Berry (<i>Eustrephus latifolius</i>). https://dengarden.com . [Accessed 16 Jul 2020] | "Wombat berry will grow on most soil types and even tolerates light frost. <i>Eustrephus latifolius</i> suffers from no major pests or diseases." |

| 407 | Causes allergies or is otherwise toxic to humans | n |
|-----|--|---|
| | Source(s) | Notes |
| | Gorst, J. R. (2000). Indigenous fruits of Australia. <i>ISHS Acta Horticulturae</i> 575: 555-561 | [No evidence. Edible fruit] "Wombat Berry (<i>Eustrephus latifolius</i>) – SMILACACEAE. A common vine of open forests right along the east coast of Queensland and NSW, the species produces 1– 1.5 cm wide berries that ripen from green to orange and split to display shiny black seeds. The Aboriginals enjoy the tiny crisp white pulp surrounding each seed (Low, 1991)." |

| Qsn # | Question | Answer |
|-------|---|---|
| | Australian Native Plant Society, (2020). <i>Eustrephus latifolius</i> . http://anpsa.org.au/e-lat.html . [Accessed] | [No evidence] "The fleshy roots of the plant are edible." |
| | Quattrocchi, U. 2012. CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology. CRC Press, Boca Raton, FL | No evidence |
| | Wagstaff, D.J. 2008. International poisonous plants checklist: an evidence-based reference. CRC Press, Boca Raton, FL | No evidence |

| 408 | Creates a fire hazard in natural ecosystems | |
|-----|--|--|
| | Source(s) | Notes |
| | Benson, D., & McDougall, L. (2005). Ecology of Sydney plant species: part 10, Monocotyledon families Lemnaceae to Zosteraceae. <i>Cunninghamia</i> 9(1): 16-204 | "FIRE RESPONSE: Stems killed, resprouts from base (after high-intensity fire at Narrabeen 1/1994), secondary juvenile period 3 months (P. Kubiak pers. comm.)." |
| | Atlas of Life in the Coastal Wilderness. (2020). <i>Eustrephus latifolius</i> . https://atlasoflife.naturemapr.org/Sightings/4207985 . [Accessed 16 Jul 2020] | [Resprouts from roots after fire. Flammability or contribution to fuel load unknown. Could possibly serve as a fuel ladder into taller vegetation] "Fruiting at one year post-fire. It will have resprouted from the roots rather than germinating from seed, so has the advantage over obligate seeders of already having a well developed root system, hence the quick return to seed production. Most vines seem to resprout off the roots after fire." |
| | WRA Specialist. (2020). Personal Communication | Occurs in fire prone areas, and resprouts after fire, but contribution to fuel load unknown. Probably not a major fire risk, but could possibly serve as a fuel ladder to taller vegetation |

| 409 | Is a shade tolerant plant at some stage of its life cycle | y |
|-----|--|--|
| | Source(s) | Notes |
| | Plants for a Future. (2020). <i>Eustrephus latifolius</i> . https://pfaf.org . [Accessed 16 Jul 2020] | "Succeeds in heavy shade in Australian gardens, requiring shade in most soil types[157]." |
| | Toowoomba Plants. (2011). Thursday, June 30, 2011 Wombat Berry <i>Eustrephus latifolius</i> . http://toowoombaplants2008.blogspot.com/2011/06/wombat-berry.html . [Accessed 16 Jul 2020] | "They grow in heavy shade, so can even be used indoors (but don't expect flowers or fruit in that situation)." |
| | Australian Native Plant Society, (2020). <i>Eustrephus latifolius</i> . http://anpsa.org.au/e-lat.html . [Accessed 15 Jul 2020] | "Wombat berry is hardy in a range of soils and climates and is best if grown in a semi shaded position." |

| 410 | Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island) | y |
|-----|--|--|
| | Source(s) | Notes |
| | Australian Native Plant Society, (2020). <i>Eustrephus latifolius</i> . http://anpsa.org.au/e-lat.html . [Accessed 15 Jul 2020] | "Wombat berry is hardy in a range of soils and climates and is best if grown in a semi shaded position." |

| 411 | Climbing or smothering growth habit | y |
|-----|-------------------------------------|---|
|-----|-------------------------------------|---|

| Qsn # | Question | Answer |
|-------|--|--|
| | Source(s) | Notes |
| | Australian Native Plant Society, (2020). <i>Eustrephus latifolius</i> . http://anpsa.org.au/e-lat.html . [Accessed 15 Jul 2020] | " <i>Eustrephus latifolius</i> is the sole member of the genus. It is usually a reasonably vigorous twining plant but may also occur as a scrambling ground cover. " ... "It is not excessively vigorous and is unlikely to become a problem by smothering other plants." |
| | Laferrière, J. (1995). Nomenclature and type specimens in <i>Eustrephus</i> R.Br. and <i>Geitonoplesium</i> Hook. (<i>Geitonoplesiaceae</i>). <i>Austrobaileya</i> , 4(3), 391-399 | "Small shrubs or twining climbers, 1-5 m tall" |
| | Benson, D., & Picone, D. (2009). Monitoring vegetation change over 30 years: lessons from an urban bushland reserve in Sydney. <i>Cunninghamia</i> , 11(2), 195-202 | [Recommended for removal to allow for tree regeneration] "In 1998 Stanton remeasured the Buchanan transects. By1998 the abundance, dominance, and smothering habit of the climbers were having a detrimental effect on regeneration of the vegetation, though the removal of <i>Pittosporum</i> had been effective in increasing species richness of previously densely shaded area (Stanton 1998). There was no regeneration of <i>Pittosporum</i> in areas from which it had been removed." ... "Stanton (1998) made recommendations including • the climbers <i>Pandorea pandorana</i> , <i>Clematis aristata</i> , <i>Cayratia clematidea</i> and <i>Eustrephus latifolius</i> should be removed from regenerating trees, shrubs, herbs and grasses" |

| 412 | Forms dense thickets | n |
|-----|--|--|
| | Source(s) | Notes |
| | Australian Native Plant Society, (2020). <i>Eustrephus latifolius</i> . http://anpsa.org.au/e-lat.html . [Accessed 15 Jul 2020] | "It is not excessively vigorous and is unlikely to become a problem by smothering other plants." |

| 501 | Aquatic | n |
|-----|--|---|
| | Source(s) | Notes |
| | Australian Native Plant Society, (2020). <i>Eustrephus latifolius</i> . http://anpsa.org.au/e-lat.html . [Accessed 15 Jul 2020] | [Terrestrial] "Dry and wet forests and heaths of Queensland, New South Wales and Victoria. It also occurs in New Guinea and New Caledonia." |

| 502 | Grass | n |
|-----|--|--|
| | Source(s) | Notes |
| | USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 15 Jul 2020] | Family: Asparagaceae Subfamily: Lomandroideae |

| Qsn # | Question | Answer |
|-------|--|--|
| 503 | Nitrogen fixing woody plant | n |
| | Source(s) | Notes |
| | USDA, Agricultural Research Service, National Plant Germplasm System. (2020). Germplasm Resources Information Network (GRIN-Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/ . [Accessed 15 Jul 2020] | Family: Asparagaceae Subfamily: Lomandroideae |

| | | |
|-----|---|---|
| 504 | Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers) | y |
| | Source(s) | Notes |
| | Laferrière, J. (1995). Nomenclature and type specimens in <i>Eustrephus</i> R.Br. and <i>Geitonoplesium</i> Hook. (<i>Geitonoplesiaceae</i>). <i>Austrobaileya</i> , 4(3), 391-399 | "Roots fusiform, sometimes tuberous." |
| | Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume III. Flowering plants, Monocotyledons: Liliaceae (except Orchidaceae). Springer-Verlag, Berlin, Heidelberg, New York | "Shrub or twining from short rhizomes; roots fibrous with distal tubers." |

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|-----|--|--|
| 601 | Evidence of substantial reproductive failure in native habitat | n |
| | Source(s) | Notes |
| | Australian Native Plant Society, (2020). <i>Eustrephus latifolius</i> . http://anpsa.org.au/e-lat.html . [Accessed 15 Jul 2020] | "Conservation Status: Not considered to be at risk in the wild." |

| | | |
|-----|--|--|
| 602 | Produces viable seed | y |
| | Source(s) | Notes |
| | Laferrière, J. (1995). Nomenclature and type specimens in <i>Eustrephus</i> R.Br. and <i>Geitonoplesium</i> Hook. (<i>Geitonoplesiaceae</i>). <i>Austrobaileya</i> , 4(3), 391-399 | "Fruit a yellow, globular or rarely pyriform fleshy capsule 0.7-2.0 cm in diameter. Seeds 8-12, subspherical, evenly rounded to obtusely angled, strophiolate" |
| | Australian Native Plant Society, (2020). <i>Eustrephus latifolius</i> . http://anpsa.org.au/e-lat.html . [Accessed 15 Jul 2020] | "The flowers are followed by orange berries containing a number of shiny, black seeds. The fruits usually remain on the plant for many months." ... "Propagation is best carried out from fresh seed." |

| | | |
|-----|---|--|
| 603 | Hybridizes naturally | n |
| | Source(s) | Notes |
| | Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume III. Flowering plants, Monocotyledons: Liliaceae (except Orchidaceae). Springer-Verlag, Berlin, Heidelberg, New York | [No evidence] "Only one, very variable sp., <i>E. latifolius</i> R. Br. in Ker Gawl. from E Australia, extending to New Guinea, New Caledonia and the Pacific Islands; naturalised on Java. Although there is a single species, because of its wide range and morphological variability, numerous infraspecific taxa were described by Schlittler (1951). Studies by Conran (1987) and Laferriere (1995) did not support the retention of any of Schlittler's taxa." |

| Qsn # | Question | Answer |
|-------|---|--|
| 604 | Self-compatible or apomictic | |
| | Source(s) | Notes |
| | Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume III. Flowering plants, Monocotyledons: Liliaceae (except Orchidaceae). Springer-Verlag, Berlin, Heidelberg, New York | [Unknown] "Flowers in axillary or terminal cymes; perigone developed, articulated on the pedicel; flowers numerous or single per node, subtended by several bracts; tepals free, lanceolate, pale pink or white, margins of inner whorl fimbriate. Anthers elongate, introrse, basifixed, dehiscent by apical pores, filaments united, flattened." |

| 605 | Requires specialist pollinators | n |
|-----|---|---|
| | Source(s) | Notes |
| | Hunter, J. T. (2006). Vegetation and Floristics of Maryland National Park. A Report to the New South Wales National Parks and Wildlife Service. J. T. Hunter, Invergowrie NSW | "Appendix F: Traditional and other uses of plants found within the reserve" [Eustrephus latifolius - Pollinated by honeybees, small beetles.] |
| | Benson, D., & McDougall, L. (2005). Ecology of Sydney plant species: part 10, Monocotyledon families Lemnaceae to Zosteraceae. Cunninghamia 9(1): 16-204 | "FLOWERS: Pink to mauve or white, September–November. Probably pollinated by honeybees <i>Apis mellifera</i> ; small beetles (Coleoptera) seen on flowers (P. Kubiak pers. comm.)." |

| 606 | Reproduction by vegetative fragmentation | n |
|-----|--|--|
| | Source(s) | Notes |
| | Plants for a Future. (2020). <i>Eustrephus latifolius</i> . https://pfaf.org . [Accessed 16 Jul 2020] | "Propagation - Seed - sow spring in a greenhouse. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the greenhouse for at least their first winter. Plant out into their permanent positions in early summer. Division in spring." [No evidence] |
| | Toowoomba Plants. (2011). Thursday, June 30, 2011 Wombat Berry <i>Eustrephus latifolius</i> . http://toowoombaplants2008.blogspot.com/2011/06/wombat-berry.html . [Accessed 16 Jul 2020] | [Deeply buried tubers unlikely to be source of vegetative spread] "I suppose wombats (in those parts of Australia where wombats live) must eat the tubers of this plant. People can eat them too, and they are said to be sweet and delicious. If you want to try, you'll need a good digging stick, as they might be half a metre underground." |

| 607 | Minimum generative time (years) | >3 |
|-----|--|---|
| | Source(s) | Notes |
| | Hunter, J. T. (2006). Vegetation and Floristics of Maryland National Park. A Report to the New South Wales National Parks and Wildlife Service. J. T. Hunter, Invergowrie NSW | "Table 3: Known fire responses and traits of taxa found in Maryland National Park." [Eustrephus latifolius - Primary Juvenile Period = 3-5 years] |
| | Atlas of Life in the Coastal Wilderness. (2020). <i>Eustrephus latifolius</i> . https://atlasoflife.naturemapr.org/Sightings/4207985 . [Accessed 16 Jul 2020] | [Reaches maturity from roots one year after fire. Time to maturity from seed unspecified] "Fruiting at one year post-fire. It will have resprouted from the roots rather than germinating from seed, so has the advantage over obligate seeders of already having a well developed root system, hence the quick return to seed production. Most vines seem to resprout off the roots after fire." |

| | | |
|-----|--|---|
| 701 | Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas) | n |
|-----|--|---|

| Qsn # | Question | Answer |
|-------|---|--|
| | Source(s) | Notes |
| | Benson, D., & McDougall, L. (2005). Ecology of Sydney plant species: part 10, Monocotyledon families Lemnaceae to Zosteraceae. <i>Cunninghamia</i> 9(1): 16-204 | [No evidence] "FRUIT/SEED: Globular, fleshy, yellow-orange capsule, 10–20 mm diam. Seeds numerous, black, with prominent white aril, January–September. DISPERSAL, ESTABLISHMENT & GROWTH: Diaspore: seed/fruit, bird-dispersed e.g. Currawongs (Wallace 1997)." |

| 702 | Propagules dispersed intentionally by people | y |
|-----|--|---|
| | Source(s) | Notes |
| | Plants for a Future. (2020). <i>Eustrephus latifolius</i> . https://pfaf.org . [Accessed 16 Jul 2020] | "Succeeds in heavy shade in Australian gardens, requiring shade in most soil types[157]. This species is not very hardy in Britain, though it can succeed outdoors in the mildest areas of the country[1]. It tolerates temperatures down to at least -7°C in Australian gardens [157], but this cannot be translated directly to British gardens due to our cooler summers and longer, colder and wetter winters. Plants require support by tying[157]." |

| 703 | Propagules likely to disperse as a produce contaminant | n |
|-----|---|--|
| | Source(s) | Notes |
| | Benson, D., & McDougall, L. (2005). Ecology of Sydney plant species: part 10, Monocotyledon families Lemnaceae to Zosteraceae. <i>Cunninghamia</i> 9(1): 16-204 | "Diaspore: seed/fruit, bird-dispersed" [No evidence] |

| 704 | Propagules adapted to wind dispersal | n |
|-----|--|--|
| | Source(s) | Notes |
| | Laferrière, J. (1995). Nomenclature and type specimens in <i>Eustrephus</i> R.Br. and <i>Geitonoplesium</i> Hook. (<i>Geitonoplesiaceae</i>). <i>Austrobaileya</i> , 4(3), 391-399 | "Fruit a yellow, globular or rarely pyriform fleshy capsule 0.7-2.0 cm in diameter. Seeds 8-12, subspherical, evenly rounded to obtusely angled, strophiolate" |
| | Hunter, J. T. (2006). Vegetation and Floristics of Maryland National Park. A Report to the New South Wales National Parks and Wildlife Service. J. T. Hunter, Invergowrie NSW | "Table 3: Known fire responses and traits of taxa found in Maryland National Park." [<i>Eustrephus latifolius</i> - Dispersal & establishment = Bird dispersed] |

| 705 | Propagules water dispersed | |
|-----|---|--|
| | Source(s) | Notes |
| | Low, T. (2015). Bush Treats. Wombat Berry <i>Eustrephus latifolius</i> . The Escarpment Park Friend Jul – Aug 2015 | [Occurrence along river banks suggests water may facilitate dispersal of seeds] "Wombat Berry is an evergreen vine native to Malaysia, the Pacific Islands and eastern Australia. It occurs in sclerophyll forest (type of vegetation that has hard leaves), woodland, heath, gallery forest (a narrow strip of forest along the banks of a watercourse through open country) and on the margins of rainforest." |
| | Benson, D., & McDougall, L. (2005). Ecology of Sydney plant species: part 10, Monocotyledon families Lemnaceae to Zosteraceae. <i>Cunninghamia</i> 9(1): 16-204 | [Present in gullies. Potentially moved by water] "DISPERSAL, ESTABLISHMENT & GROWTH: Diaspore: seed/fruit, bird-dispersed e.g. Currawongs (Wallace 1997)." ... "HABITAT: Gullies and moist hillsides" |

| Qsn # | Question | Answer |
|-------|--|---|
| 706 | Propagules bird dispersed | y |
| | Source(s) | Notes |
| | Gallagher, R. V. (2015). Climbing plant diversity in Australia: taxonomy, biogeography and functional traits. Pp. 104-115 in Ecology of Lianas. John Wiley & Sons, Ltd, Chichester | "seeds of some Australian climbing plants (e.g., Morinda jasminoides, Eustrephus latifolius) require passage through the gut of vertebrates to stimulate germination (Bell 1999)." |
| | Moreton Bay Regional Council. (2010). Vines of the Moreton Bay Region. www.moretonbay.qld.gov.au | "Wombat Berry (<i>Eustrephus latifolius</i>) Weak climber. Similar to Scrambling Lily but has no mid-vein. Coils right to left (clockwise). The orange-coloured fruit is food for birds." |

| 707 | Propagules dispersed by other animals (externally) | n |
|-----|--|---|
| | Source(s) | Notes |
| | Gallagher, R. V. (2015). Climbing plant diversity in Australia: taxonomy, biogeography and functional traits. Pp. 104-115 in Ecology of Lianas. John Wiley & Sons, Ltd, Chichester | "seeds of some Australian climbing plants (e.g., Morinda jasminoides, Eustrephus latifolius) require passage through the gut of vertebrates to stimulate germination (Bell 1999)." [Internally dispersed] |

| 708 | Propagules survive passage through the gut | y |
|-----|---|--|
| | Source(s) | Notes |
| | Gallagher, R. V. (2015). Climbing plant diversity in Australia: taxonomy, biogeography and functional traits. Pp. 104-115 in Ecology of Lianas. John Wiley & Sons, Ltd, Chichester | "seeds of some Australian climbing plants (e.g., Morinda jasminoides, Eustrephus latifolius) require passage through the gut of vertebrates to stimulate germination (Bell 1999)." |
| | Kubitzki, K. (ed.). 1998. The Families and genera of vascular plants. Volume III. Flowering plants, Monocotyledons: Liliaceae (except Orchidaceae). Springer-Verlag, Berlin, Heidelberg, New York | "The strophioles of <i>Eustrephus</i> are juicy, sweet-tasting and animal-dispersed." |

| 801 | Prolific seed production (>1000/m ²) | |
|-----|--|---|
| | Source(s) | Notes |
| | Laferrière, J. (1995). Nomenclature and type specimens in <i>Eustrephus</i> R.Br. and <i>Geitonoplesium</i> Hook. (<i>Geitonoplesiaceae</i>). <i>Austrobaileya</i> , 4(3), 391-399 | "Fruit a yellow, globular or rarely pyriform fleshy capsule 0.7-2.0 cm in diameter. Seeds 8-12, subspherical, evenly rounded to obtusely angled, strophiolate" [Seed densities unknown, but probably unlikely to reach such high densities] |

| 802 | Evidence that a persistent propagule bank is formed (>1 yr) | |
|-----|---|---|
| | Source(s) | Notes |
| | WRA Specialist. (2020). Personal Communication | Unknown. May be able to persist in soil from tuberous roots |

| Qsn # | Question | Answer |
|-------|--|---|
| 803 | Well controlled by herbicides | |
| | Source(s) | Notes |
| | WRA Specialist. (2020). Personal Communication | Unknown. No information on herbicide efficacy or chemical control of this species |

| 804 | Tolerates, or benefits from, mutilation, cultivation, or fire | y |
|-----|--|---|
| | Source(s) | Notes |
| | Clarke, P. J., Knox, K. J., Campbell, M. L., & Copeland, L. M. (2009). Post-fire recovery of woody plants in the New England Tableland Bioregion. <i>Cunninghamia</i> , 11, 221-239 | "Appendix 3. List of taxa and their habitats, fire response, primary juvenile period, secondary juvenile period and growth form." [Eustrephus latifolius - IV. Resprouts from root buds] |
| | Toowoomba Plants. (2011). Thursday, June 30, 2011 Wombat Berry Eustrephus latifolius. http://toowoombaplants2008.blogspot.com/2011/06/wombat-berry.html . [Accessed 16 Jul 2020] | "These light climbers are suitable for garden use, but are best cut back to the ground each winter, and allowed to regrow in spring." [Tolerates cutting back to ground, and will repeatedly grow back] |
| | Atlas of Life in the Coastal Wilderness. (2020). Eustrephus latifolius. https://atlasoflife.naturemapr.org/Sightings/4207985 . [Accessed 16 Jul 2020] | [Resprouts from roots after fire] "Fruiting at one year post-fire. It will have resprouted from the roots rather than germinating from seed, so has the advantage over obligate seeders of already having a well developed root system, hence the quick return to seed production. Most vines seem to resprout off the roots after fire." |

| 805 | Effective natural enemies present locally (e.g. introduced biocontrol agents) | |
|-----|---|---------|
| | Source(s) | Notes |
| | WRA Specialist. (2020). Personal Communication | Unknown |

Summary of Risk Traits:

High Risk / Undesirable Traits

- Broad climate suitability
- Thrives in tropical climates
- Reported to be naturalized in Java and New Zealand
- Shade tolerant (may be able to invade intact forest)
- Tolerates many soil types
- Climbing habit (although not reported to smother other vegetation)
- Able to resprout from tuberous roots
- Reproduces by seeds
- Reaches maturity in 3-5 years from seed
- Seeds dispersed by birds, other fruit-eating animals, and intentionally by people
- Able to resprout after cutting and fire

Low Risk Traits

- Generally considered a non-aggressive plant that can be outcompeted by more vigorous species
- Unarmed (no spines, thorns, or burrs)
- Non-toxic
- Palatable tubers and fruit
- Not reported to spread vegetatively

Second Screening Results for Vines & Lianas

(A) Reported as a weed of cultivated lands?> No

(B) Unpalatable to grazers or known to form dense stands?> No

(C) Shade tolerant or known to form dense stands?> Yes. Shade tolerant

(D) Bird- Or clearly wind- dispersed?> Yes. Dispersed by birds and other animals

(E) Life cycle <4 years? Yes. Reaches maturity in 3-5 years

Outcome = Reject (High Risk)

