

Taxon: *Notechidnopsis tessellata* (Pillans) Lavranos & Bleck

Family: Apocynaceae

Common Name(s): notechidnopsis

Synonym(s): *Caralluma tessellata* Pillans
Echidnopsis framesii A.C.White & ...

Assessor: Chuck Chimera

Status: Assessor Approved

End Date: 3 Jan 2017

WRA Score: -3.0

Designation: L

Rating: Low Risk

Keywords: Succulent, Unarmed, Ornamental, Wind-Dispersed, Low Seed Set

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)	Intermediate
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	n
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	n
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
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	y=1, n=0	n
409	Is a shade tolerant plant at some stage of its life cycle		

Qsn #	Question	Answer Option	Answer
410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)		
411	Climbing or smothering growth habit		
412	Forms dense thickets		
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		
603	Hybridizes naturally		
604	Self-compatible or apomictic		
605	Requires specialist pollinators		
606	Reproduction by vegetative fragmentation		
607	Minimum generative time (years)		
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)		
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	y
705	Propagules water dispersed	y=1, n=-1	n
706	Propagules bird dispersed	y=1, n=-1	n
707	Propagules dispersed by other animals (externally)		
708	Propagules survive passage through the gut	y=1, n=-1	n
801	Prolific seed production (>1000/m ²)	y=1, n=-1	n
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		
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
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). <i>Kew Bulletin</i> , 54(2): 327-345	No evidence of domestication

102	Has the species become naturalized where grown?	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	NA

103	Does the species have weedy races?	
	Source(s)	Notes
	WRA Specialist. 2017. 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"	Intermediate
	Source(s)	Notes
	Albers, F. & Meve, U. (eds.). 2002. <i>Illustrated Handbook of Succulent Plants: Asclepiadaceae</i> . Springer Science & Business Media, Berlin - Heidelberg - New York	"RSA (Northern Cape, Western Cape)."

202	Quality of climate match data	High
	Source(s)	Notes
	Albers, F. & Meve, U. (eds.). 2002. <i>Illustrated Handbook of Succulent Plants: Asclepiadaceae</i> . Springer Science & Business Media, Berlin - Heidelberg - New York	

203	Broad climate suitability (environmental versatility)	n
	Source(s)	Notes
	Germishuizen, G. & Meyer, N.L. (eds.). (2003). <i>Plants of southern Africa: an annotated checklist</i> . <i>Strelitzia</i> 14. National Botanical Institute, Pretoria	"Perennial. Succulent. Ht 0.03–0.15 m. Alt 300–700 m. NC, WC"
	Albers, F. & Meve, U. (eds.). 2002. <i>Illustrated Handbook of Succulent Plants: Asclepiadaceae</i> . Springer Science & Business Media, Berlin - Heidelberg - New York	"RSA (Northern Cape, Western Cape)."

Qsn #	Question	Answer
	SouthAfrica.com. 2016. The Climate of the Western Cape Province. http://www.southafrica.com/western-cape/climate/ . [Accessed 3 Jan 2017]	"The Cape Town area of the Western Cape has a Mediterranean climate. Inland and coastal temperatures usually differ as the mild, dry and very sunny summers warm the coast with temperature lows of 15 degrees and highs averaging 27 degrees, and inland temperatures are often 3 – 5 degrees higher than the coastal areas. Winter along the coast is chilly but hardly ever drops below 7 degrees and the midday highs see temperatures of 18 degrees. As mentioned before, the inland temperatures are higher, but inland residents can find themselves waking up to 5 degrees and warming to a perfect 22."
	SouthAfrica.com. 2017. Climate of the Northern Cape Province. http://www.southafrica.com/northern-cape/climate/ . [Accessed 3 Jan 2017]	"The Northern Cape is the largest province in South Africa and it shares its border with Namibia. A portion of the Kalahari Desert falls into this province and the areas skirting the desert are either arid or semi-arid. Most parts of the province receive under 400mm of rainfall each year and the climate in the Northern Cape is mostly hot and dry. However, this does not mean that everything in the Northern Cape is sand and sun. The province is large and there is plenty of room for diversity – especially in the western regions of the Northern Cape."

204	Native or naturalized in regions with tropical or subtropical climates	n
	Source(s)	Notes
	Germishuizen, G. & Meyer, N.L. (eds). (2003). Plants of southern Africa: an annotated checklist. <i>Strelitzia</i> 14. National Botanical Institute, Pretoria	"Perennial. Succulent. Ht 0.03–0.15 m. Alt 300–700 m. NC, WC"

205	Does the species have a history of repeated introductions outside its natural range?	n
	Source(s)	Notes
	Rau, E. 2016. President, Sustainable Bioresources, LLC. Personal Communication. 29 December	"Intended for use as ornamental and I may screen for medicinal compounds. Has had some prior distribution as an ornamental on the mainland."

301	Naturalized beyond native range	n
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence
	Wagner, W.L., Herbst, D.R. & Lorence, D.H. 2017. Flora of the Hawaiian Islands. Smithsonian Institution, Washington, D.C. http://botany.si.edu/ . [Accessed 3 Jan 2017]	No evidence

Qsn #	Question	Answer
302	Garden/amenity/disturbance weed	n
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

303	Agricultural/forestry/horticultural weed	n
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

304	Environmental weed	n
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

305	Congeneric weed	n
	Source(s)	Notes
	Randall, R.P. 2012. A Global Compendium of Weeds. 2nd Edition. Department of Agriculture and Food, Western Australia	No evidence

401	Produces spines, thorns or burrs	n
	Source(s)	Notes
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). Kew Bulletin, 54(2): 327-345	"Small spineless succulent forming mat or somewhat glabrous" ... "Small succulent forming eventually a tangled mat up to 300 mm diam. Stems prostrate to decumbent, sometimes slightly rhizomatous, 30 - 150 x 9 - 15 mm, green to purplish green; tubercles 1 - 2 mm long, 4 - 6-sided, flattish rising to obtuse tooth in middle, arranged into 6 - 8 very low obtuse rows along stems."

402	Allelopathic	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown

Qsn #	Question	Answer
403	Parasitic	n
	Source(s)	Notes
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). <i>Kew Bulletin</i> , 54(2): 327-345	"Small spineless succulent forming mat or somewhat glabrous" [Apocynaceae. Subfamily: Asclepiadoideae]

404	Unpalatable to grazing animals	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown

405	Toxic to animals	n
	Source(s)	Notes
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). <i>Kew Bulletin</i> , 54(2): 327-345	No evidence
	Quattrocchi, U. 2012. <i>CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology</i> . CRC Press, Boca Raton, FL	No evidence
	Wagstaff, D.J. 2008. <i>International poisonous plants checklist: an evidence-based reference</i> . CRC Press, Boca Raton, FL	No evidence

406	Host for recognized pests and pathogens	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown

407	Causes allergies or is otherwise toxic to humans	n
	Source(s)	Notes
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). <i>Kew Bulletin</i> , 54(2): 327-345	No evidence
	Quattrocchi, U. 2012. <i>CRC World Dictionary of Medicinal and Poisonous Plants: Common Names, Scientific Names, Eponyms, Synonyms, and Etymology</i> . CRC Press, Boca Raton, FL	No evidence
	Wagstaff, D.J. 2008. <i>International poisonous plants checklist: an evidence-based reference</i> . CRC Press, Boca Raton, FL	No evidence

Qsn #	Question	Answer
408	Creates a fire hazard in natural ecosystems	n
	Source(s)	Notes
	Albers, F. & Meve, U. (eds.). 2002. Illustrated Handbook of Succulent Plants: Asclepiadaceae. Springer Science & Business Media, Berlin - Heidelberg - New York	"Sparsely branched stem succulents forming loose cushions, stoloniferous" [No evidence. Succulent]

409	Is a shade tolerant plant at some stage of its life cycle	
	Source(s)	Notes
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). <i>Kew Bulletin</i> , 54(2): 327-345	"...with the prostrate to decumbent stems creeping among stones and under small bushes for protection"
	Exotica. (2017). Care guide. https://www.specks-exotica.com/en/cultivation_data.html . [Accessed 3 Jan 2017]	" <i>Notechidnopsis tessellata</i> ... Light - sunny"
	Rau, E. 2016. President, Sustainable Bioresources, LLC. Personal Communication. 29 December	"Probably prefer to grow in partial shade."

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	
	Source(s)	Notes
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). <i>Kew Bulletin</i> , 54(2): 327-345	"Specimens are almost always found on the lower slopes of dry hills, usually on shales, with the prostrate to decumbent stems creeping among stones ..."
	Rau, E. 2016. President, Sustainable Bioresources, LLC. Personal Communication. 29 December	"Unlike <i>Huernia longii</i> , they have not rooted or survived on the ground on native cinder soils in this area (Naalehu)."

411	Climbing or smothering growth habit	
	Source(s)	Notes
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). <i>Kew Bulletin</i> , 54(2): 327-345	[Possibly Yes. Forms dense mats] "Small succulent forming eventually a tangled mat up to 300 mm diam." ... "Specimens are almost always found on the lower slopes of dry hills, usually on shales, with the prostrate to decumbent stems creeping among stones and under small bushes for protection, forming sometimes quite extensive and dense mats."

412	Forms dense thickets	
	Source(s)	Notes
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). <i>Kew Bulletin</i> , 54(2): 327-345	"... with the prostrate to decumbent stems creeping among stones and under small bushes for protection, forming sometimes quite extensive and dense mats." [Unknown if dense mats competitively exclude other vegetation]

501	Aquatic	n
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Qsn #	Question	Answer
	Source(s)	Notes
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). Kew Bulletin, 54(2): 327-345	[Terrestrial] "Specimens are almost always found on the lower slopes of dry hills, usually on shales, with the prostrate to decumbent stems creeping among stones and under small bushes for protection, forming sometimes quite extensive and dense mats."

502	Grass	n
	Source(s)	Notes
	The Plant List. 2013. Version 1.1. Published on the Internet; http://www.theplantlist.org/ . [Accessed 31 Dec 2016]	Apocynaceae

503	Nitrogen fixing woody plant	n
	Source(s)	Notes
	The Plant List. 2013. Version 1.1. Published on the Internet; http://www.theplantlist.org/ . [Accessed 31 Dec 2016]	Apocynaceae

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	Notes
	Albers, F. & Meve, U. (eds.). 2002. Illustrated Handbook of Succulent Plants: Asclepiadaceae. Springer Science & Business Media, Berlin - Heidelberg - New York	"Stems (6- to) 10-angled, creeping to prostrate-decumbent, 2 - 20 x 0.8 - 1.8 cm, sparsely branched, green, regularly tessellated with always rectangular (sometimes irregular owing to interspersed"
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). Kew Bulletin, 54(2): 327-345	"Stems prostrate to decumbent, often rhizomatous then with erect tips"

601	Evidence of substantial reproductive failure in native habitat	n
	Source(s)	Notes
	Hilton-Taylor, C. (1996). Red data list of Southern African plants. <i>Strelitzia</i> 4. National Botanical Institute, Pretoria	"nt, not threatened"
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). Kew Bulletin, 54(2): 327-345	[No evidence] "N. tessellata is found from Vanrhynsdorp to Bitterfontein and eastwards towards Loerienfontein, mainly in the hills and mountains around the basin of the Sout, Doring and Hantam Rivers. It does not inhabit the quartz patches which are well-known and characteristic of the Knervlakte and is mainly found on shale slopes or around their bases."

602	Produces viable seed	
	Source(s)	Notes

Qsn #	Question	Answer
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). <i>Kew Bulletin</i> , 54(2): 327-345	"I have rarely seen fruit of either species but in the cases seen the follicles were erect, diverging from one another at 30 - 60°. Two pods produced by hand-pollination on <i>N. tessellata</i> had 24 and 26 seeds per horn respectively with each horn 45 - 55 x + 4 mm."
	Rau, E. 2016. President, Sustainable Bioresources, LLC. Personal Communication. 29 December	"They bloom frequently but have not set seeds and likely to be self-sterile." [Seed set in Hawaii may be limited or absent]

603	Hybridizes naturally	
	Source(s)	Notes
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). <i>Kew Bulletin</i> , 54(2): 327-345	Unknown. No hybrids reported in this publication

604	Self-compatible or apomictic	
	Source(s)	Notes
	Rau, E. 2016. President, Sustainable Bioresources, LLC. Personal Communication. 29 December	"They bloom frequently but have not set seeds and likely to be self-sterile."

605	Requires specialist pollinators	
	Source(s)	Notes
	CactiGuide.com. 2007. <i>Notechidnopsis tessellata</i> . http://cactiguide.com/forum/viewtopic.php?t=4023 . [Accessed 31 Dec 2016]	"To the best of my knowledge they also rely on flies for pollination (like other Stapeliads). I have noticed very tiny fly species on some of my other Stapeliads before, so I guess the right fly will be able to pollinate this flower. I will soon know if pollination is even possible out of habitat."
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). <i>Kew Bulletin</i> , 54(2): 327-345	"Two pods produced by hand-pollination on <i>N. tessellata</i> had 24 and 26 seeds per horn respectively with each horn 45 - 55 x + 4 mm."

606	Reproduction by vegetative fragmentation	
	Source(s)	Notes
	Rau, E. 2016. President, Sustainable Bioresources, LLC. Personal Communication. 29 December	[Possibly, under suitable conditions] "Small pieces of the plant break off easily and root quickly in propagation media. Unlike <i>Huernia longii</i> , they have not rooted or survived on the ground on native cinder soils in this area (Naalehu)."

607	Minimum generative time (years)	
	Source(s)	Notes
	Rau, E. 2016. President, Sustainable Bioresources, LLC. Personal Communication. 29 December	"They bloom frequently but have not set seeds and likely to be self-sterile. Small pieces of the plant break off easily and root quickly in propagation media." [Vegetation reproduction may be possible prior to first flowering]

Qsn #	Question	Answer
701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	
	Source(s)	Notes
	Albers, F. & Meve, U. (eds.). 2002. Illustrated Handbook of Succulent Plants: Asclepiadaceae. Springer Science & Business Media, Berlin - Heidelberg - New York	"Fr narrowly fusiform, 3 - 4 cm; Se brown, ± 4 × 2.5 mm, tuft of Ha ± 14 mm."
	WRA Specialist. 2017. Personal Communication	Unlikely, but possibly if hairs on seeds aid in adherence to clothing, or mud on shoes or equipment. However, seeds rarely, if ever produced in cultivation

702	Propagules dispersed intentionally by people	y
	Source(s)	Notes
	Rau, E. 2016. President, Sustainable Bioresources, LLC. Personal Communication. 29 December	"Intended for use as ornamental and I may screen for medicinal compounds. Has had some prior distribution as an ornamental on the mainland."

703	Propagules likely to disperse as a produce contaminant	n
	Source(s)	Notes
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). Kew Bulletin, 54(2): 327-345	[Highly unlikely given difficulty in obtaining seeds in cultivation "I have rarely seen fruit of either species but in the cases seen the follicles were erect, diverging from one another at 30 - 60°. Two pods produced by hand-pollination on <i>N. tessellata</i> had 24 and 26 seeds per horn respectively with each horn 45 - 55 x + 4 mm."
	Rau, E. 2016. President, Sustainable Bioresources, LLC. Personal Communication. 29 December	[Highly unlikely given difficulty in obtaining seeds in cultivation] "They bloom frequently but have not set seeds and likely to be self-sterile."

704	Propagules adapted to wind dispersal	y
	Source(s)	Notes
	Albers, F. & Meve, U. (eds.). 2002. Illustrated Handbook of Succulent Plants: Asclepiadaceae. Springer Science & Business Media, Berlin - Heidelberg - New York	"Fr narrowly fusiform, 3 - 4 cm; Se brown, ± 4 × 2.5 mm, tuft of Ha ± 14 mm." [Presumably Yes. When produced, but rare in cultivation]

705	Propagules water dispersed	n
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unlikely source of secondary dispersal. Produces wind-dispersed seeds within native range, but rarely, if ever, produces seeds in cultivation.

706	Propagules bird dispersed	n
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	No evidence. Seeds, if produced, are adapted for wind-dispersal

Qsn #	Question	Answer
707	Propagules dispersed by other animals (externally)	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown, but hairs may aid in attachment if seeds are produced

708	Propagules survive passage through the gut	n
	Source(s)	Notes
	Gordon, D. R., Mitterdorfer, B., Pheloung, P. C., Ansari, S., Buddenhagen, C., Chimera, C., ... & Williams, P. A. 2010). Guidance for addressing the Australian Weed Risk Assessment questions. <i>Plant Protection Quarterly</i> , 25(2): 56-74	[No evidence that follicles or seeds would be consumed] "Answer 'no' where the taxon is unlikely to be eaten by animals or if seeds are not viable following passage through the gut."

801	Prolific seed production (>1000/m2)	n
	Source(s)	Notes
	Bruyns, P. V. (1999). A systematic analysis with notes on the taxonomy of <i>Notechidnopsis</i> (Apocynaceae: Asclepiadoideae). <i>Kew Bulletin</i> , 54(2): 327-345	"I have rarely seen fruit of either species but in the cases seen the follicles were erect, diverging from one another at 30 - 60°. Two pods produced by hand-pollination on <i>N. tessellata</i> had 24 and 26 seeds per horn respectively with each horn 45 - 55 x + 4 mm."
	Rau, E. 2016. President, Sustainable Bioresources, LLC. Personal Communication. 29 December	"They bloom frequently but have not set seeds and likely to be self-sterile."

802	Evidence that a persistent propagule bank is formed (>1 yr)	
	Source(s)	Notes
	Royal Botanic Gardens Kew. (2017) Seed Information Database (SID). Version 7.1. Available from: http://data.kew.org/sid/ . [Accessed]	Unknown

803	Well controlled by herbicides	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown. No information on herbicide efficacy or chemical control of this species

804	Tolerates, or benefits from, mutilation, cultivation, or fire	
	Source(s)	Notes
	Rau, E. 2016. President, Sustainable Bioresources, LLC. Personal Communication. 29 December	[Unknown if able to resprout from cutting or damage] "Small pieces of the plant break off easily and root quickly in propagation media. Unlike <i>Huernia longii</i> , they have not rooted or survived on the ground on native cinder soils in this area (Naalehu)."

Qsn #	Question	Answer
805	Effective natural enemies present locally (e.g. introduced biocontrol agents)	
	Source(s)	Notes
	WRA Specialist. 2017. Personal Communication	Unknown

Summary of Risk Traits:

High Risk / Undesirable Traits

- Native to regions with Mediterranean climate, but able to be cultivated in regions with subtropical climate
- Forms dense and extensive mats in native range
- Reproduces by seeds & by vegetative cuttings
- Seeds dispersed by wind
- Limited ecological information reduces accuracy of risk prediction

Low Risk / Desirable Traits

- No reports of invasiveness or naturalization, but no evidence of widespread introduction outside native range
- Unarmed (no spines, thorns, or burrs)
- Ornamental & possible medicinal uses
- May be self-incompatible
- Limited or absent seed set in cultivation