Taxon: Strelitzia juncea Link **Family:** Strelitziaceae

Common Name(s): crane flower **Synonym(s):** Strelitzia parvifolia var. juncea Ker
Strelitzia reginae var. juncea (Ker

Assessor: Chuck Chimera **Status:** Assessor Approved **End Date:** 15 Mar 2017

WRA Score: -4.0 **Designation:** L **Rating:** Low Risk

Keywords: Perennial Herb, Unarmed, Ornamental, Bird-Pollinated, Bird-Dispersed

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	?
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	y=1, n=-1	y
405	Toxic to animals		
406	Host for recognized pests and pathogens		
407	Causes allergies or is otherwise toxic to humans		
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)	y=1, n=0	n
411	Climbing or smothering growth habit	y=1, n=0	n
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	n
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		
604	Self-compatible or apomictic		
605	Requires specialist pollinators	y=-1, n=0	y
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	y=1, n=-1	n
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	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**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 14 Mar 2017]	[No evidence of domestication] "This is a striking feature plant with upright cylindrical leaves without a leaf blade, growing from 1 to 2 m in height and producing large orange or yellow flowers borne on long, cylindrical scapes from May to October. Strelitzia juncea is one of five Strelitzia species in southern Africa, namely S. alba, S. nicolai, S. reginae and S. caudata."

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**
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 14 Mar 2017]	"Native: Africa - Southern Africa: South Africa - Cape Province" [most of the Western Cape experiences a maritime Mediterranean climate, with the winter months wet and cool, the summer hot and dry.]

202	Quality of climate match data	High
	Source(s)	**Notes**
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed]	

Qsn #	Question	Answer
203	**Broad climate suitability (environmental versatility)**	**n**
	Source(s)	**Notes**
	Dave's Garden. 2017. Narrow-Leaved Bird of Paradise - Strelitzia juncea. http://davesgarden.com/guides/pf/go/2468/. [Accessed 15 Mar 2017]	"Hardiness: USDA Zone 9b: to -3.8 °C (25 °F) USDA Zone 10a: to -1.1 °C (30 °F) USDA Zone 10b: to 1.7 °C (35 °F) USDA Zone 11: above 4.5 °C (40 °F)"
	Backyard Gardener. 2017. Strelitzia juncea (Juncus). http://www.backyardgardener.com/plantname/strelitzia-juncea-juncus/. [Accessed 15 Mar 2017]	"USDA Hardiness Zone: 10 to 11"

Qsn #	Question	Answer
204	**Native or naturalized in regions with tropical or subtropical climates**	**n**
	Source(s)	**Notes**
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 15 Mar 2017]	"Native: Africa - Southern Africa: South Africa - Cape Province" [most of the Western Cape experiences a maritime Mediterranean climate, with the winter months wet and cool, the summer hot and dry.]
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

Qsn #	Question	Answer
205	**Does the species have a history of repeated introductions outside its natural range?**	**?**
	Source(s)	**Notes**
	Dave's Garden. 2017. Narrow-Leaved Bird of Paradise - Strelitzia juncea. http://davesgarden.com/guides/pf/go/2468/. [Accessed 15 Mar 2017]	"This plant has been said to grow in the following regions: Reseda, California Thousand Oaks, California Tulare, California Naples, Florida Palm Beach, Florida Sebring, Florida Dayton, Nevada"

Qsn #	Question	Answer
301	**Naturalized beyond native range**	**n**
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	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 14 Mar 2017]	No evidence to date

Qsn #	Question	Answer
302	**Garden/amenity/disturbance weed**	**n**
	Source(s)	**Notes**
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	No evidence

Qsn #	Question	Answer
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**
	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**
	Nursery & Garden Industry Australia. 2008. Grow Me Instead - A Guide for Gardeners in Victoria. http://www.growmeinstead.com.au/. [Accessed 15 Mar 2017]	[Strelitzia reginae recommended as a non-invasive alternative to Zantedeschia aethiopica] "This South African native is a member of the banana family. An evergreen perennial that will reach 1.5 to 2 m in most situations. It is grown for its spectacular flowers and used all over the world for cut flower arrangements. It requires full-sun to part shade, warm temperatures and is extremely drought tolerant. Keep them crowded in pots for maximum number of blooms."
	Randall, R.P. (2017). A Global Compendium of Weeds. 3rd Edition. Perth, Western Australia. R.P. Randall	Strelitzia alba & Strelitzia reginae listed as weeds, but evidence of impacts unconfirmed

401	Produces spines, thorns or burrs	n
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 14 Mar 2017]	[No evidence] "A perennial herb 1–2 m high, producing thick fleshy roots and upright cylindrical leaves without a leaf blade. S. juncea does not multiply by suckering from the base of the stem, but subdivision takes place between the middle leaves of each fan."

402	Allelopathic	
	Source(s)	**Notes**
	WRA Specialist. 2017. Personal Communication	Unknown. No evidence found

403	Parasitic	n
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 14 Mar 2017]	"A perennial herb 1–2 m high, producing thick fleshy roots and upright cylindrical leaves without a leaf blade. S. juncea does not multiply by suckering from the base of the stem, but subdivision takes place between the middle leaves of each fan." [Strelitziaceae. No evidence]

404	Unpalatable to grazing animals	y
	Source(s)	**Notes**

Qsn #	Question	Answer
	Backyard Gardener. 2017. Strelitzia juncea (Juncus). http://www.backyardgardener.com/plantname/strelitzia-juncea-juncus/. [Accessed 15 Mar 2017]	"Conditions : Deer Tolerant " ... "Conditions : Rabbit Tolerant" [Presumably unpalatable]
	Sloat Garden Center. 2012. Deer Resistant Plants. http://www.sloatgardens.com/. [Accessed 15 Mar 2017]	"These plants will usually not be disturbed by deer, but please note that there are no deer proof plants." [Possibly, Strelitzia included in list, but no genera specified]

405	Toxic to animals	
	Source(s)	**Notes**
	Stein, G. 2009. Birds of Paradise- the Strelitzias. Dave's Garden. http://davesgarden.com/guides/articles/view/1898. [Accessed 15 Mar 2017]	[Unknown. Possibly] "Leaves of this genus are listed as 'possibly toxic' but few cases of actual toxicity exist in the literature, at least in small animal medicine. The seeds are supposedly more toxic and will cause vomiting if ingested."

406	Host for recognized pests and pathogens	
	Source(s)	**Notes**
	Backyard Gardener. 2017. Strelitzia juncea (Juncus). http://www.backyardgardener.com/plantname/strelitzia-juncea-juncus/. [Accessed 15 Mar 2017]	"Important Info : Repot every other year. Prone to pests and diseases." ... "Fungi : Leaf Spots " ... "Pest : Scale Insects " ...
	Flower Power Garden Centres. 2017. Bird of Paradise (Strelitzia). http://www.flowerpower.com.au/gardening/bird-of-paradise-strelitzia/. [Accessed 15 Mar 2017]	"Pests and Diseases Thankfully Strelitzias are not prone to any serious problems in Australia. The most common are: Root Rot: Caused by inadequate drainage. Water builds up around the fleshy roots, causing them to slowly rot. It can be hard to identify early as the plant slowly wilts and looks generally miserable. Digging into the soil reveals slimy and sometimes dark roots. Try raising the garden bed or in clay soils, adding gypsum to help improve the soil structure. Mealy Bug or Scale: These tiny insects can be a problem throughout the garden. Either spray them off with a jet of water and squash them or, for big infestations, consider a spray with an insecticide. Leaf Blight: Usually identified by white spots on the leaves with a ring of green around them. This is a fungal issue, and is treated with a spray of a fungicide."

407	Causes allergies or is otherwise toxic to humans	
	Source(s)	**Notes**
	Dave's Garden. 2017. Narrow-Leaved Bird of Paradise - Strelitzia juncea. http://davesgarden.com/guides/pf/go/2468/. [Accessed 15 Mar 2017]	"Danger: Parts of plant are poisonous if ingested"
	Stein, G. 2009. Birds of Paradise- the Strelitzias. Dave's Garden. http://davesgarden.com/guides/articles/view/1898. [Accessed 15 Mar 2017]	"Leaves of this genus are listed as 'possibly toxic' but few cases of actual toxicity exist in the literature, at least in small animal medicine. The seeds are supposedly more toxic and will cause vomiting if ingested."

Qsn #	Question	Answer
	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

408	Creates a fire hazard in natural ecosystems	n
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 15 Mar 2017]	"A perennial herb 1–2 m high, producing thick fleshy roots and upright cylindrical leaves without a leaf blade." [No evidence. Unlikely given habit]

409	Is a shade tolerant plant at some stage of its life cycle	
	Source(s)	**Notes**
	San Marcos Growers. 2017. Strelitzia juncea - Narrow-leafed Bird of Paradise. http://www.smgrowers.com/. [Accessed 15 Mar 2017]	"Exposure: Sun or Shade" ... "Plant in full sun or part shade and water only occasionally."
	Backyard Gardener. 2017. Strelitzia juncea (Juncus). http://www.backyardgardener.com/plantname/strelitzia-juncea-juncus/. [Accessed 15 Mar 2017]	"Light Range: Part Shade to Full Sun"
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 14 Mar 2017]	"Provided it is grown in a well-drained soil, S. juncea adapts well to a high rainfall but requires full sun to flower well."

410	Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)	n
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 15 Mar 2017]	"A well-drained soil is essential for the successful cultivation of this species, full sun for maximum flowering and applications every winter (May/June) of a generous layer of compost as mulch, which is a form of feeding."
	Backyard Gardener. 2017. Strelitzia juncea (Juncus). http://www.backyardgardener.com/plantname/strelitzia-juncea-juncus/. [Accessed 15 Mar 2017]	"pH Range: 5.5 to 7.5 Soil Range: Sandy Loam to Clay Loam Water Range: Normal to Moist"

411	Climbing or smothering growth habit	n
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 14 Mar 2017]	"This is a striking feature plant with upright cylindrical leaves without a leaf blade, growing from 1 to 2 m in height and producing large orange or yellow flowers borne on long, cylindrical scapes from May to October." ... "A perennial herb 1–2 m high, producing thick fleshy roots and upright cylindrical leaves without a leaf blade"

412	Forms dense thickets	n
	Source(s)	**Notes**

Qsn #	Question	Answer
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 15 Mar 2017]	[No evidence] "S. juncea occurs naturally near Uitenhage, Patensie and just north of Port Elizabeth in the Eastern Cape. These populations of S. juncea grow amongst drought-resistant shrubs belonging to genera such as Euphorbia, Cotyledon, and Pelargonium, as well as Encephalartos horridus, which indicates that S. juncea is able to survive on very little water."

501	Aquatic	n
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 14 Mar 2017]	[Terrestrial herb] "S. juncea occurs naturally near Uitenhage, Patensie and just north of Port Elizabeth in the Eastern Cape. These populations of S. juncea grow amongst drought-resistant shrubs belonging to genera such as Euphorbia, Cotyledon, and Pelargonium, as well as Encephalartos horridus, which indicates that S. juncea is able to survive on very little water."

502	Grass	n
	Source(s)	**Notes**
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 14 Mar 2017]	"Family: Strelitziaceae"

503	Nitrogen fixing woody plant	n
	Source(s)	**Notes**
	USDA, ARS, Germplasm Resources Information Network. 2017. National Plant Germplasm System [Online Database]. http://www.ars-grin.gov/npgs/index.html. [Accessed 14 Mar 2017]	"Family: Strelitziaceae"

504	Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)	n
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 15 Mar 2017]	[Not a true geophyte] "Propagation by dividing clumps ensures that clones of the same plants will be obtained. This is best done in autumn or winter. The fleshy roots are difficult to dig up and take time. Dividing into big clumps (60 cm plus in diameter) ensures that plants will recover quicker. It will take about two to three years before they are back to their flowering peak. Transplanting should be complemented by a summer feed, as mentioned above; this can be mixed in the planting hole with a dam above for the first year to catch water."

601	Evidence of substantial reproductive failure in native habitat	n

Qsn #	Question	Answer
	Source(s)	**Notes**
	Schutte-Vlok, A.L., Vlok, J.H., Dold, A.P. & Raimondo, D. 2008. Strelitzia juncea Link. National Assessment: Red List of South African Plants version 2017.1. http://redlist.sanbi.org/. [Accessed 14 Mar 2017]	[Decreasing population, but at this time, evidence of substantial reproductive failure is lacking] "Status and Criteria Vulnerable ... Threats: Industrial development in the past and ongoing at Coega, also harvested for horticultural purposes and threatened by invasive alien plants at a number of subpopulations. Population: Population trend Decreasing"

602	Produces viable seed	y
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 15 Mar 2017]	"Propagation is by means of seed and division of the fans which will take a year to re-establish. Best results from seed can be obtained by sowing fresh seed in spring. Before sowing, remove the bright orange tuft of hairs ('aril') attached to the seed. The seed can be soaked in sulphuric acid for five minutes and then washed thoroughly under running tap water for a few minutes. The scarified seeds are then soaked in a solution of ethephon (growth regulator) at a concentration of 2000 ppm active constituent. This entails making up 6 ml ethephon (39.5% active ingredient) to a litre of water. Gibberellic acid (GA3) also has similar results as ethephon at the concentration of 800 mg/dm³. One of the two growth regulators can be used to soak the seed for 48 hours, then remove from the solution and sow at a depth of 1½ times the size of the seed. A constant temperature of 25 ºC is most suitable for germination."

603	Hybridizes naturally	
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 14 Mar 2017]	[Potentially] "In the past S. juncea was regarded as a variety of S. parvifolia or as a variety of S. reginae until evidence was produced in 1974 by Dr Van de Venter (Dyer 1975) to confirm the specific status of S. juncea. Intermediate forms exist between S. reginae and S. juncea. After extensive studies Dr Van de Venter came to the conclusion that there are genetic differences between these two species and the intermediate forms could be hybrids between the two species. "

604	Self-compatible or apomictic	
	Source(s)	**Notes**
	Kress, W. (1983). Self-Incompatibility in Central American Heliconia. Evolution, 37(4), 735-744	"It is not known whether members of the three genera of the Strelitziaceae are self-incompatible."

605	Requires specialist pollinators	y
	Source(s)	**Notes**

Qsn #	Question	Answer
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 14 Mar 2017]	"In its natural habitat, S. juncea is pollinated mainly by sunbirds and sugarbirds. In areas where these pollinators do not exist, it is necessary to hand-pollinate the flowers, always cross-pollinating to ensure a good seed set. In nature the seed is dispersed by birds. This species can withstand light frost. It has a limited distribution, and known populations produce very little seed, because of unpollinated flowers. Pollinators are rarely seen in habitat."

606	Reproduction by vegetative fragmentation	n
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 15 Mar 2017]	"S. juncea does not multiply by suckering from the base of the stem, but subdivision takes place between the middle leaves of each fan."

607	Minimum generative time (years)	3
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 14 Mar 2017]	"The species is slow growing and takes 3–4 years to flower. Grown under ideal conditions S. juncea is floriferous and long-lived."

701	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	n
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 15 Mar 2017]	"In nature the seed is dispersed by birds." [No evidence]

702	Propagules dispersed intentionally by people	y
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 14 Mar 2017]	"As a garden subject S. juncea is an ideal accent plant or planted to form a bold group which requires little attention. The flowers are also ideal for cutflowers."

703	Propagules likely to disperse as a produce contaminant	n
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 15 Mar 2017]	"In nature the seed is dispersed by birds." [No evidence]

Qsn #	Question	Answer
704	**Propagules adapted to wind dispersal**	**n**
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 15 Mar 2017]	"In nature the seed is dispersed by birds." [No evidence]

705	**Propagules water dispersed**	**n**
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 15 Mar 2017]	"S. juncea occurs naturally near Uitenhage, Patensie and just north of Port Elizabeth in the Eastern Cape. These populations of S. juncea grow amongst drought-resistant shrubs belonging to genera such as Euphorbia, Cotyledon, and Pelargonium, as well as Encephalartos horridus, which indicates that S. juncea is able to survive on very little water. Provided it is grown in a well-drained soil, S. juncea adapts well to a high rainfall but requires full sun to flower well. " ... "In nature the seed is dispersed by birds." [No evidence. Occurs in dry habitats]

706	**Propagules bird dispersed**	**y**
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 14 Mar 2017]	"In nature the seed is dispersed by birds."
	Nichols, G. 2005. Growing rare plants: a practical handbook on propagating the threatened plants of southern Africa. Southern African Botanical Diversity Network Report No. 36. SABONET, Pretoria	"Strelitzia juncea capsule split open ready to release seeds. Note the orange aril that is eaten by birds and mammals, which act as dispersal agents."

707	**Propagules dispersed by other animals (externally)**	**n**
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 15 Mar 2017]	"Squirrels, mice and birds are a problem and the seed needs to be protected on the plant from squirrels and, once sown, birds and mice need to be kept out by protecting the seed trays with netting. [Seed predators could externally move seeds, but seeds lack means of external attachment]

708	**Propagules survive passage through the gut**	**y**
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 14 Mar 2017]	"In nature the seed is dispersed by birds." [Presumably yes]

801	**Prolific seed production (>1000/m2)**	**n**

Qsn #	Question	Answer
	Source(s)	**Notes**
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 14 Mar 2017]	"In its natural habitat, S. juncea is pollinated mainly by sunbirds and sugarbirds. In areas where these pollinators do not exist, it is necessary to hand-pollinate the flowers, always cross-pollinating to ensure a good seed set. In nature the seed is dispersed by birds. This species can withstand light frost. It has a limited distribution, and known populations produce very little seed, because of unpollinated flowers. Pollinators are rarely seen in habitat."

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 15 Mar 2017]	"Storage Behaviour: No data available for species or genus. Of 1 known taxa of family STRELITZIACEAE, 100.00% Intermediate(?)" [Unknown]
	Winter, J. 2004. Strelitzia juncea Link PlantZAfrica. SANBI. https://www.plantzafrica.com/plantqrs/strelitzjun.htm. [Accessed 15 Mar 2017]	[Unknown. Fresh seeds best] "Propagation is by means of seed and division of the fans which will take a year to re-establish. Best results from seed can be obtained by sowing fresh seed in spring. Before sowing, remove the bright orange tuft of hairs ('aril') attached to the seed. The seed can be soaked in sulphuric acid for five minutes and then washed thoroughly under running tap water for a few minutes."

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**
	Stein, G. 2009. Birds of Paradise- the Strelitzias. Dave's Garden. http://davesgarden.com/guides/articles/view/1898. [Accessed 15 Mar 2017]	[Yes. Can resprout after pruning] "Pruning the larger species really requires one to keep up with things as these really can get of control in a hurry. The dead leaves have to be cut as close to the ground as possible (no way to pull these unless they are really rotted and moist), but often even the lower living leaves are cut to keep the plants looking more trim. Eventually these will require ladders to read the higher stems, and pruning will involve not just cutting away the lower leaves, but cleaning of the stems to give them a healthy, neat, smooth trunk."

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
- Unpalatable go browsing animals such as deer & rabbits (potential competitive advantage)
- Seeds possibly toxic
- Reproduces by seeds
- Seeds dispersed by birds, mammals & intentionally by people
- Able to resprout after cutting & pruning

Low Risk Traits
- No reports of invasiveness or naturalization
- Unarmed (no spines, thorns, or burrs)
- Ornamental
- Requires birds for pollination & seed set (pollinator limitations may result in reduced seed set)
- Not reported to spread vegetatively