

Family: *Nymphaeaceae*

Taxon: *Nymphaea capensis*

Synonym: *Castalia capensis* (Thunb.) J. Schust.
Nymphaea capensis var. *zanzibariensis* (Casp)
Nymphaea zanzibariensis Casp.

Common Name: Blue water-lily
Cape blue water-lily
Cape water-lily

Questionnaire :	current 20090513	Assessor:	Chuck Chimera	Designation:	H(HPWRA)
Status:	Assessor Approved	Data Entry Person:	Chuck Chimera	WRA Score	12
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	y
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)	y
303	Agricultural/forestry/horticultural weed			n=0, y = 2*multiplier (see Appendix 2)	
304	Environmental weed			n=0, y = 2*multiplier (see Appendix 2)	
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	
405	Toxic to animals			y=1, n=0	n
406	Host for recognized pests and pathogens			y=1, n=0	n
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	n
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	
412	Forms dense thickets	y=1, n=0	n
501	Aquatic	y=5, n=0	y
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	y=1, n=-1	
604	Self-compatible or apomictic	y=1, n=-1	y
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	y=1, n=-1	y
706	Propagules bird dispersed	y=1, n=-1	
707	Propagules dispersed by other animals (externally)	y=1, n=-1	
708	Propagules survive passage through the gut	y=1, n=-1	
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 12

Supporting Data:

101	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Is the species highly domesticated? No] No evidence
102	2012. WRA Specialist. Personal Communication.	NA
103	2012. WRA Specialist. Personal Communication.	NA
201	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Species suited to tropical or subtropical climate(s) 2-high] "This is as often blue-flowered water-lily found throughout eastern and southern Africa and Madagascar."
202	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Quality of climate match data? 2-high] "This is as often blue-flowered water-lily found throughout eastern and southern Africa and Madagascar."
203	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Broad climate suitability (environmental versatility)? No] "...widely cultivated elsewhere in tropical and subtropical ponds and pools because of its flowers, becoming naturalized in wet places such as ditches and ponds."
203	2003. Llamas, K.A.. Tropical Flowering Plants. Timber Press, Portland, OR	[Broad climate suitability (environmental versatility)? No] "zones 10-11"
204	1981. Smith, A.C.. Flora Vitiensis Nova - A New Flora of Fiji (Spermatophytes Only). Volume 2. Pacific Tropical Botanical Garden, Lawai, HI	[Native or naturalized in regions with tropical or subtropical climates? Yes] "The species as a whole occurs in southern and eastern Africa and Madagascar...Like many others of the genus, this beautiful species is widely cultivated and often becomes naturalized. In the Pacific it has been noted in Tahiti and Hawaii as well as in Fiji, but it probably also occurs in other archipelagoes."
204	2003. Wagner, W.L./Herbst, D.R.. Supplement to the Manual of the flowering plants of Hawaii. Version 2.3. Smithsonian Institution, Washington, D.C. http://rathbun.si.edu/botany/pacificislandbiodiversity/hawaiianflora/index.htm	[Native or naturalized in regions with tropical or subtropical climates? Yes] "newly naturalized (Kaua`i); range extension (Kaua`i)"
205	1981. Smith, A.C.. Flora Vitiensis Nova - A New Flora of Fiji (Spermatophytes Only). Volume 2. Pacific Tropical Botanical Garden, Lawai, HI	[Does the species have a history of repeated introductions outside its natural range? Yes] "The species as a whole occurs in southern and eastern Africa and Madagascar...Like many others of the genus, this beautiful species is widely cultivated and often becomes naturalized. In the Pacific it has been noted in Tahiti and Hawaii as well as in Fiji, but it probably also occurs in other archipelagoes."
205	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Does the species have a history of repeated introductions outside its natural range? Yes] "...widely cultivated elsewhere in tropical and subtropical ponds and pools because of its flowers, becoming naturalized in wet places such as ditches and ponds."
301	1981. Godfrey, R.K./Wooten, J.W.. Aquatic and wetland plants of southeastern United States: dicotyledons, Volume 2. University of Georgia Press, Athens, GA	[Naturalized beyond native range? Yes] "Locally abundant as an escape from cultivation in sand-bottomed ditches. Native to S. Afr., naturalized in Indian River and Seminole Cos., Fla."
301	2003. Wagner, W.L./Herbst, D.R.. Supplement to the Manual of the flowering plants of Hawaii. Version 2.3. Smithsonian Institution, Washington, D.C. http://rathbun.si.edu/botany/pacificislandbiodiversity/hawaiianflora/index.htm	[Naturalized beyond native range? Yes] "newly naturalized (Kaua`i); range extension (Kaua`i)"
301	2003. Wunderlin, R.P./Hansen, B.F.. Guide to the Vascular Plants of Florida. University Press of Florida, Gainesville, FL	[Naturalized beyond native range? Yes] "Ponds and canals. Occasional; central peninsula, Miami-Dade Co. Native to Africa. Escaped from cultivation."
301	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Naturalized beyond native range? Yes] "On Kauai, garden escapes or discards of this water-lily have naturalized in some ponds and low-lying wet areas. Specimens from the naturalized populations have been identified as <i>N. capensis</i> var. <i>zanzibariensis</i> (Caspary) Conard."

301	2006. Howell, C.J./Sawyer, J.W.D.. New Zealand naturalised vascular plant checklist. New Zealand Plant Conservation Network, Wellington, NZ www.nzpcn.org.nz	[Naturalized beyond native range? Casual. New Zealand] "Naturalised plant status - Casual" [Casual is the name given to taxa that are: passively regenerating only in the immediate vicinity of the cultivated parent plant, or more widespread but only known as isolated or few individuals; garden escapes persisting only 2–3 years; or garden discards persisting vegetatively but not spreading sexually or asexually'(Webb et al. 1988).]
301	2007. McCormack, G.. Cook Islands Biodiversity Database, Version 2007.2.. Cook Islands Natural Heritage Trust, Rarotonga http://cookislands.bishopmuseum.org	[Naturalized beyond native range? Yes] "COOK ISLANDS STATUS: Introduced - Recent (post-1930), Naturalised; S.Group - widespread and common; Freshwater, wetlands - ponds"
301	2009. La-onsri, W./Trisonthi, C./Balslev, H.. A synopsis of Thai Nymphaeaceae. Nordic Journal of Botany. 27: 97–114.	[Naturalized beyond native range? Adventive in Thailand] "A synopsis of Nymphaeaceae from Thailand was made by means of a literature search, consultation of herbarium specimens in several Thai and European herbaria, and a survey of 47 wetlands throughout Thailand. Nymphaeaceae phylogeny, habitats and reproductive ecology are reviewed. All species encountered were cultivated at Queen Sirikit Botanic Garden in Chiang Mai for further observations. Two species of Barclaya (<i>B. longifolia</i> and <i>B. motleyi</i>) the latter being represented by only a single herbarium specimen with uncertain origin, were encountered. In Nymphaea, four native species, the day-blooming <i>N. cyanea</i> and <i>N. nouchali</i> , and the night-blooming <i>N. pubescens</i> and <i>N. rubra</i> , were encountered. In addition, the day-blooming <i>N. capensis</i> , which has been introduced into Thailand, was found adventive at several localities. Barclaya species are restricted to pristine natural forest habitats, whereas Nymphaea species occur naturally in swamps and lakes, but are now found in many anthropogenic habitats."
301	2010. Wu, S.-H./Yang, T.Y.A./Teng, Y.-C./Chang, C.-Y./Yang, K.-C./Hsieh, C.-F.. Insights of the Latest Naturalized Flora of Taiwan: Change in the Past Eight Years. Taiwaniana. 55(2): 139-159.	[Naturalized beyond native range? Yes] Taiwan
301	2012. PlantNET. New South Wales flora online - Nymphaea capensis Thunb.. Royal Botanic Gardens & Domain Trust,, Sydney http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=sp&name=Nymphaea-capensis	[Naturalized beyond native range? Yes] "This naturalised taxon has been named previously as <i>N. caerulea</i> subsp. <i>zanzibarensis</i> . However, it is better treated as <i>N. capensis</i> until this whole group of species is further revised in all parts of the world (J. Wiersema, pers. comm.) "
302	2001. Southern Tablelands & South Coast Noxious Plants Committee. Regional Weed Management Plan for Aquatic Noxious Weeds. Queanbeyan City Council, Queanbeyan, Australia	[Garden/amenity/disturbance weed? Yes] "Other serious aquatic weeds include <i>Elodea canadensis</i> (Canadian Pondweed), <i>Egeria densa</i> (Dense Waterweed), <i>Ludwigia peruviana</i> , <i>Nymphaea capensis</i> (Cape Waterlily), <i>Myriophyllum</i> spp (Watermilfoils), <i>Hydrilla verticillata</i> (Water Thyme), and <i>Certophyllum demersum</i> (Hornwort)."
302	2007. McCormack, G.. Cook Islands Biodiversity Database, Version 2007.2.. Cook Islands Natural Heritage Trust, Rarotonga http://cookislands.bishopmuseum.org	[Garden/amenity/disturbance weed? Yes] "NEGATIVE SIGNIFICANCE: Weed - very minor. Comments: Widespread in the waterways of lowland Taro swamps. Sometimes requires control."
302	2007. Randall, R.P.. Global Compendium of Weeds - <i>Nymphaea capensis</i> [Online Database]. http://www.hear.org/gcw/species/nymphaea_capensis/	[Garden/amenity/disturbance weed? Yes]
303	2007. McCormack, G.. Cook Islands Biodiversity Database, Version 2007.2.. Cook Islands Natural Heritage Trust, Rarotonga http://cookislands.bishopmuseum.org	[Agricultural/forestry/horticultural weed? Potentially] "NEGATIVE SIGNIFICANCE: Weed - very minor. Comments: Widespread in the waterways of lowland Taro swamps. Sometimes requires control." [Weed of minor significance. Insufficient to answer yes to this question]
304	2007. Randall, R.P.. Global Compendium of Weeds - <i>Nymphaea capensis</i> [Online Database]. http://www.hear.org/gcw/species/nymphaea_capensis/	[Environmental weed? Possibly] Environmental weed [Listed as an environmental weed, but evidence of significant impacts not found]

305	2001. Hegazy, A.K./Amer, W.M./Khedr, A.A.. Allelopathic effect of <i>Nymphaea lotus</i> L. on growth and yield of cultivated rice around Lake Manzala (Nile Delta). <i>Hydrobiologia</i> . 464(1): 133-142.	[Congeneric weed? Yes] "Lotus infestation of ricefields is a major cause of crop failure and decrease of grain yield in the newly reclaimed cut-off areas around lake Manzala, Egypt. This study provides insights in the allelopathic effect of <i>Nymphaea lotus</i> L. on rice (<i>Oryza sativa</i> cavr. Giza-177). Lotus rhizome extracts were inhibitory to seed germination and seedling growth of rice. The degree of inhibition was dependent on extract type and concentration. Ethanol and water extracts were more inhibitory than chloroform extracts. The phenolic fraction of ethanol extracts showed the highest inhibitory effects. In a target (rice) neighbour (lotus) pot experiment, rice dry mass and relative growth rate were dependent on its age and on lotus rhizome density, with decreased growth at increased lotus density. Field data on infested and non infested ricefields demonstrated a decreased leaf area index and yield in infested fields. Identification of the potential allelochemical compounds by gas chromatography/mass spectrometry revealed the presence of allelopathic phenolics in lotus rhizomes."
401	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Produces spines, thorns or burrs? No] "Small to medium plant. Lf blades ± circular to broadly elliptic, 8-12" Ø, often flush reddish, margins tooted."
402	2012. WRA Specialist. Personal Communication.	[Allelopathic? Unknown] Other <i>Nymphaea</i> species may possess allelopathic properties
403	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Parasitic? No] No evidence
404	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Unpalatable to grazing animals? Unknown] "The seeds and tubers are edible though not widely eaten." [Palatability of foliage unknown]
405	2012. Specialized Information Services, U.S. National Library of Medicine. TOXNET toxicology data network [online database]. National Institutes of Health, http://toxnet.nlm.nih.gov/	[Toxic to animals? No] No evidence
406	2012. Backyard Gardener. <i>Nymphaea capensis</i> . http://www.backyardgardener.com/plantname/pda_0bcd-2.html	[Host for recognized pests and pathogens? No] Pest : Aphids
407	1953. Irvine, F.R./Trickett, R.S.. Waterlilies as Food. <i>Kew Bulletin</i> . 8(3): 363-370.	[Causes allergies or is otherwise toxic to humans? No evidence] "The ' roots ' of a blue water lily, known in Madagascar as "Tantamon", probably <i>N. capensis</i> Thunb. var. <i>madagascariensis</i> , are used as food in Madagascar, and like those of <i>N. lotus</i> Linn. are considered to be delicious (15)."
407	1979. Weiss, E.A.. Some Indigenous Plants Used Domestically by East African Coastal Fishermen. <i>Economic Botany</i> . 33(1): 35-51.	[Causes allergies or is otherwise toxic to humans? No] "Plants are widely regarded as having medicinal properties but there is some disagreement is to which parts cure what. Underwater stems are used for stomach ailments, and the juice of raw leaves to ease chest conditions. It is an ingredient in many of the herbal medicines (dawa) of the coast, but it is most likely that a number of such uses may have been introduced by Arabs and Indians, for it is most commonly so used on Zanzibar and Pemba. The roots are collected and eaten in times of famine." [No evidence]
408	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Creates a fire hazard in natural ecosystems? No] Aquatic
409	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Is a shade tolerant plant at some stage of its life cycle? No] "Sunny places in shallow ponds are preferred, and full sun is needed for optimal flowering."
409	2012. Backyard Gardener. <i>Nymphaea capensis</i> . http://www.backyardgardener.com/plantname/pda_0bcd-2.html	[Is a shade tolerant plant at some stage of its life cycle? No] "Light Range: Part Sun to Full Sun "
409	2012. South African National Biodiversity Institute. PlantzAfrica.com - <i>Nymphaea nouchali</i> . http://www.plantzafrika.com/plantnop/nymphnouch.htm	[Is a shade tolerant plant at some stage of its life cycle? No] "Water lilies are simple to grow, all they need is full sun, some good soil and at least 30 cm of still water. Full sun is necessary for the plants to grow vigorously and produce flowers as well as for the flowers to open during the day."
410	2010. Gordon, D.R./Mitterdorfer, B./Pheloung, P.C. et al.. Guidance for addressing the Australian Weed Risk Assessment questions. <i>Plant Protection Quarterly</i> . 25(2): 56-74.	[Tolerates a wide range of soil conditions? No] "always answer 'no' for submerged or floating aquatic plants or air plants."

411	2007. McCormack, G.. Cook Islands Biodiversity Database, Version 2007.2.. Cook Islands Natural Heritage Trust, Rarotonga http://cookislands.bishopmuseum.org	[Climbing or smothering growth habit? Possibly] "Comments: Widespread in the waterways of lowland Taro swamps. Sometimes requires control." [Possibly can choke out or otherwise "smother" waterways]
412	2010. Gordon, D.R./Mitterdorfer, B./Pheloung, P.C. et al.. Guidance for addressing the Australian Weed Risk Assessment questions. Plant Protection Quarterly. 25(2): 56-74.	[Forms dense thickets? No] "The thickets produced should obstruct passage or access, or exclude other species. Woody perennials are the most likely candidates, but this question may include densely growing grasses." [Aquatic plant does not produce thickets]
501	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Aquatic? Yes] "There are about 35 species of <i>Nymphaea</i> distributed throughout the world, extending from the subarctic zones to the tropics. They grow in still or slow-moving waters on deep substrates that can accommodate the extensive root system."
502	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Grass? No] Nymphaeaceae
503	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Nitrogen fixing woody plant? No] "Herb, perennial, aquatic, rooting in the mud and forming tubers."
504	2010. Gordon, D.R./Mitterdorfer, B./Pheloung, P.C. et al.. Guidance for addressing the Australian Weed Risk Assessment questions. Plant Protection Quarterly. 25(2): 56-74.	[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] "This question addresses taxa that have specialized organs and should not include plants with just rhizomes/ stolons (see 6.06). Answer 'yes' only for perennial taxa with tubers, corms, or bulbs. Answer 'no' for non-geophytes, including those with rhizomes or stolons only"
601	1995. Orban, I./Bouharmont, J.. Reproductive biology of <i>Nymphaea capensis</i> Thunb. var. <i>zanzibariensis</i> (Casp.) Verdc. (Nymphaeaceae). Botanical Journal of the Linnean Society. 119: 35-43.	[Evidence of substantial reproductive failure in native habitat? No] No evidence
602	1905. Conard, H.S.. The waterlilies: taxonomy and bibliography. The Carnegie Institution, Washington D.C.	[Produces viable seed? Yes] "N. capensis grows easily and flowers and fruits freely."
602	1995. Orban, I./Bouharmont, J.. Reproductive biology of <i>Nymphaea capensis</i> Thunb. var. <i>zanzibariensis</i> (Casp.) Verdc. (Nymphaeaceae). Botanical Journal of the Linnean Society. 119: 35-43.	[Produces viable seed? Yes] "The average number of seeds produced by the pollinated flowers on the first day of anthesis is 1424 per fruit."
602	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Produces viable seed? Yes] "Fruit a many-seeded spongy berry, developing underwater after the passed flower becomes submerged. Propagate by seeds or division."
603	1991. Pienaar, K.. Gardening with indigenous plants. Struik, Cape Town, S.A.	[Hybridizes naturally? Possibly Yes] "A great variety of hybrids has already been cultivated and plants with flowers of different shapes and sizes are available." [Capable of hybridization in cultivation]
603	2011. Mudugamuwa, M.. Nil Manel under threat of extinction. The Island, August 22, 2011. http://www.island.lk/index.php?page_cat=article-details&page=article-details&code_title=33032	[Hybridizes naturally? Possibly Yes] "Sri Lanka's national flower (Nil Manel) is under threat of extinction due to hybridizing with a foreign species. This was revealed by Peradeniya University Botany Department Senior Lecturer Prof. Deepthi Yakandawala. She said that the native Nil Manel flower is small and bluer than the larger purple imposter which may be either <i>Nymphaea capensis</i> . Water-lilies (<i>Nymphaea</i> sp.) have been popular as an ornamental aquatic plant in Sri Lanka from ancient times as they produce striking flowers throughout the year. Prof. Yakandawala said that the hybridization has been observed in several places in Sri Lanka's natural environment. She also added that the flower shown as Sri Lanka's national flower in stamps and other publications is a foreign imposter. Hybridization of invasive aliens with native flora is currently identified as a major threat where this could lead to the extinction of the native flora, Prof. Yakandawala said."
603	2011. Yakandawala, D./Yakandawala, K.. Hybridization Between Native and Invasive Alien Plants: An Overlooked Threat to the Biodiversity of Sri Lanka. Ceylon Journal of Science. 40 (1): 13-23.	[Hybridizes naturally? Possibly Yes] "The study revealed the abundant occurrence of the violet flowered <i>Nymphaea</i> species in 40% of the water-bodies (Fig. 2). The violet flowered <i>Nymphaea</i> species has not only invaded the natural habitats of <i>N. nouchali</i> , but also has extended its territory into larger tanks inhabited by other aquatic macrophytes... Based on the studies conducted by the authors, the plant has been identified as a hybrid, with one parent being <i>N. micrantha</i> Gill. & Perr. The other likely parent is either <i>N. capensis</i> Thunb., or <i>N. caerulea</i> Savigny."

604	1995. Orban, I./Bouharmont, J.. Reproductive biology of <i>Nymphaea capensis</i> Thunb. var. <i>zanzibariensis</i> (Casp.) Verdc. (Nymphaeaceae). Botanical Journal of the Linnean Society. 119: 35–43.	[Self-compatible or apomictic? Yes] "The flowers are homogamous and not protogynous as the other <i>Nymphaea</i> . The gynoecium of the self-compatible <i>N. capensis</i> var. <i>zanzibariensis</i> , is characterized by a wet papillate stigma, a short hollow style, and secretory cells on the ventral surface of the ovary."
605	2006. Renner, S.S.. Rewardless Flowers in the Angiosperms and the Role of Insect Cognition in Their Evolution. Pp. 123-144 in N.M. Waser & J. Ollerton (eds.). Plant-Pollinator Interactions. The University of Chicago Press, Chicago, IL	[Requires specialist pollinators? No] "Pollen-feeding flies, bees, and beetles"
606	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Reproduction by vegetative fragmentation? Possibly] "Propagate by seeds or division."
607	2012. South African National Biodiversity Institute. PlantzAfrica.com - <i>Nymphaea nouchali</i> . http://www.plantzafrika.com/plantnop/nymphnouch.htm	[Minimum generative time (years)? 3+] "The blue water lily may be grown from seed, but this requires patience, for the plants take 3 to 4 years to flower." [Nymphaea nouchali; Synonyms: Nymphaea capensis Thunb.]
701	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? Yes] "On Kauai, garden escapes or discards of this water-lily have naturalized in some ponds and low-lying wet areas."
702	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Propagules dispersed intentionally by people? Yes] "Although <i>N. capensis</i> has flowers that range from blue to mauve, pink, and even white, the Hawaiian plants we have seen are an attractive intense pink." [Ornamental]
703	2005. Staples, G.W./Herbst, D.R.. A Tropical Garden Flora - Plants Cultivated in the Hawaiian Islands and Other Tropical Places. Bishop Museum Press, Honolulu, HI	[Propagules likely to disperse as a produce contaminant? No] "On Kauai, garden escapes or discards of this water-lily have naturalized in some ponds and low-lying wet areas." [Inadvertent dispersal possible, but not grown with produce]
704	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Propagules adapted to wind dispersal? No] "Fruit a many-seeded spongy berry, developing underwater after the passed flower becomes submerged. Propagate by seeds or division."
705	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Propagules water dispersed? Yes] "Fruit a many-seeded spongy berry, developing underwater after the passed flower becomes submerged. Propagate by seeds or division."
706	1988. Wiersema, J.H.. Reproductive Biology of <i>Nymphaea</i> (Nymphaeaceae). Annals of the Missouri Botanical Garden. 75(3): 795-804.	[Propagules bird dispersed? Possibly] "In cases involving overland dispersal, seeds are the probable dispersal units and waterbirds the likely agents." [<i>N. capensis</i> has a berry, may be bird-dispersed]
706	2000. Staples, G.W./Herbst, D.R./Imada, C.T.. Survey of invasive or potentially invasive cultivated plants in Hawai'i. Bishop Museum Occasional Papers. 65: 1-35.	[Propagules bird dispersed? Possibly] "Table 2. Annotated checklist of invasive or potentially invasive cultivated plants in Hawai'i with dispersal syndrome" [<i>Nymphaea capensis</i> = B?; possibly bird-dispersed]
707	2012. South African National Biodiversity Institute. PlantzAfrica.com - <i>Nymphaea nouchali</i> . http://www.plantzafrika.com/plantnop/nymphnouch.htm	[Propagules dispersed by other animals (externally)? Unknown] "It is difficult to collect the seed, because the seed pods burst without much warning and the seeds disperse and sink quite soon." [No evidence, although seeds could possibly adhere to birds or other animals in mud]
708	1988. Wiersema, J.H.. Reproductive Biology of <i>Nymphaea</i> (Nymphaeaceae). Annals of the Missouri Botanical Garden. 75(3): 795-804.	[Propagules survive passage through the gut? Unknown] "In cases involving overland dispersal, seeds are the probable dispersal units and waterbirds the likely agents."
801	2000. Whistler, W.A.. Tropical Ornamentals: A Guide. Timber Press, Portland, OR	[Prolific seed production (>1000/m ²)? Unknown] "Fruit a many-seeded spongy berry]
802	2008. Royal Botanic Gardens Kew. Seed Information Database (SID). Version 7.1. http://data.kew.org/sid/	[Evidence that a persistent propagule bank is formed (>1 yr)? Unknown] No information from laboratory or field conditions
803	2012. WRA Specialist. Personal Communication.	[Well controlled by herbicides? Unknown] No information found on herbicide efficacy or chemical control of this species.
804	2012. WRA Specialist. Personal Communication.	[Tolerates, or benefits from, mutilation, cultivation, or fire? Unknown]
805	2012. WRA Specialist. Personal Communication.	[Effective natural enemies present locally (e.g. introduced biocontrol agents)? Unknown]