

Assessment date 11/15/2021 Prepared by Williams

<i>Cyperus blepharoleptos Steud.</i> - (Cuban bulrush). Synonyms: <i>Oxycaryum cubense</i>, <i>Scirpus cubensis</i> ALL ZONES		Answer	Score
1.01	Is the species highly domesticated?	n	0
1.02	Has the species become naturalised where grown?		
1.03	Does the species have weedy races?		
2.01	Species suited to Florida's USDA climate zones (0-low; 1-intermediate; 2-high) North Zone: suited to Zones 8, 9 Central Zone: suited to Zones 9, 10 South Zone: suited to Zone 10	3	
2.02	Quality of climate match data (0-low; 1-intermediate; 2-high)	3	
2.03	Broad climate suitability (environmental versatility)	y	1
2.04	Native or naturalized in habitats with periodic inundation North Zone: mean annual precipitation 50-70 inches Central Zone: mean annual precipitation 40-60 inches South Zone: mean annual precipitation 40-60 inches	y	1
2.05	Does the species have a history of repeated introductions outside its natural range?	y	
3.01	Naturalized beyond native range	y	2
3.02	Garden/amenity/disturbance weed	y	2
3.03	Weed of agriculture	?	
3.04	Environmental weed	y	4
3.05	Congeneric weed	y	2
4.01	Produces spines, thorns or burrs	n	0
4.02	Allelopathic	n	0
4.03	Parasitic	n	0
4.04	Unpalatable to grazing animals	?	
4.05	Toxic to animals	n	0
4.06	Host for recognised pests and pathogens	n	0
4.07	Causes allergies or is otherwise toxic to humans	n	0
4.08	Creates a fire hazard in natural ecosystems	n	0
4.09	Is a shade tolerant plant at some stage of its life cycle	?	
4.10	Grows on infertile soils (oligotrophic, limerock, or excessively draining soils). North & Central Zones: infertile soils; South Zone: shallow limerock or Histisols.	n	0
4.11	Climbing or smothering growth habit	n	0
4.12	Forms dense thickets	y	1
5.01	Aquatic	y	5

5.02	Grass	n	0
5.03	Nitrogen fixing woody plant	n	0
5.04	Geophyte	n	0
6.01	Evidence of substantial reproductive failure in native habitat	n	0
6.02	Produces viable seed	y	1
6.03	Hybridizes naturally	?	
6.04	Self-compatible or apomictic	y	1
6.05	Requires specialist pollinators	n	0
6.06	Reproduction by vegetative propagation	y	1
6.07	Minimum generative time (years)	?	
7.01	Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)	?	
7.02	Propagules dispersed intentionally by people	n	-1
7.03	Propagules likely to disperse as a produce contaminant	n	-1
7.04	Propagules adapted to wind dispersal	n	-1
7.05	Propagules water dispersed	y	1
7.06	Propagules bird dispersed	y	1
7.07	Propagules dispersed by other animals (externally)	?	
7.08	Propagules dispersed by other animals (internally)	?	
8.01	Prolific seed production	?	
8.02	Evidence that a persistent propagule bank is formed (>1 yr)	?	
8.03	Well controlled by herbicides	y	-1
8.04	Tolerates, or benefits from, mutilation or cultivation	?	
8.05	Effective natural enemies present in U.S.	?	
Total Score		19	
Implemented Pacific Second Screening		n/a	
Risk Assessment Results		HIGH RISK	

section	# questions answered	satisfy minimum?
A		10 yes
B		10 yes
C		15 yes
total		yes

	Reference	Source data
1.01	No documentation of domestication	
1.02	Skipped according to guidelines since the answer of 1.01 is "no"	
1.03	Skipped according to guidelines since the answer of 1.01 is "no"	
2.01	1-2. <i>C. blepharoleptos</i> is present in zones 8b through 10b in Florida	1. USDA Hardiness Zones - Florida-Friendly Landscaping™ Program - University of Florida, Institute of Food and Agricultural Sciences - UF/IFAS. (2021, February 9). USDA Plant Hardiness Zone Map for Florida. https://ffl.ifas.ufl.edu/resources/usda-hardiness-zones/ 2. Global Biodiversity Information Facility. (n.d.). <i>Cyperus blepharoleptos</i> Steud. <i>Cyperus Blepharoleptos</i> Steud. Retrieved October 1, 2021, from https://www.gbif.org/species/2710884
2.02	No computer analysis was performed.	
2.03	1-4. Grows in the following Koppen Geiger zones in Florida: Cfa, Af, Am, Aw, and grows in the following Koppen Geiger zones outside of Florida: Af, Am, Aw, BSh, Bwh, Cfa, Cfb, Csa, Csb, Cwb	1. Global Biodiversity Information Facility. (n.d.). <i>Cyperus blepharoleptos</i> Steud. <i>Cyperus Blepharoleptos</i> Steud. Retrieved October 1, 2021, from https://www.gbif.org/species/2710884 2. Plantmaps. (n.d.). Interactive South America Koppen-Geiger Climate Classification Map. Plantmaps. Retrieved October 12, 2021, from https://www.plantmaps.com/koppen-climate-classification-map-south-america.php 3. Plantmaps. (n.d.-a). Interactive Africa Koppen-Geiger Climate Classification Map. Retrieved October 12, 2021, from https://www.plantmaps.com/koppen-climate-classification-map-africa.php 4. Plantmaps. (n.d.-c). Interactive United States Koppen-Geiger Climate Classification Map. Retrieved October 12, 2021, from https://www.plantmaps.com/koppen-climate-classification-map-united-states.php
2.04	1-2. <i>C. blepharoleptos</i> is present in zones 8b through 10b 3. in Tampa, part of central florida, 43.5 inches of precipitation falls annually 4. Okeechobee, FL, an area where <i>C. blepharoleptos</i> grows in south florida, gets 40.2 inches of rain per year on average	1. USDA Hardiness Zones - Florida-Friendly Landscaping™ Program - University of Florida, Institute of Food and Agricultural Sciences - UF/IFAS. (2021, February 9). USDA Plant Hardiness Zone Map for Florida. https://ffl.ifas.ufl.edu/resources/usda-hardiness-zones/ 2. Global Biodiversity Information Facility. (n.d.). <i>Cyperus blepharoleptos</i> Steud. <i>Cyperus Blepharoleptos</i> Steud. Retrieved October 1, 2021, from https://www.gbif.org/species/2710884 3. Climate Central Florida: Temperature, climate graph, Climate table for Central Florida - Climate-Data.org. (n.d.). Climate Data.Org. https://en.climate-data.org/north-america/united-states-of-america/central-florida-10204/ 4. Climate Data.Org. (n.d.). Okeechobee. https://en.climate-data.org/north-america/united-states-of-america/florida/okeechobee-18259/

2.05	<p>1. Species occurs in multiple regions outside of native range 2. Was first observed in Alabama in 1882, in Arkansas in 2019, in Florida in 1976, in Georgia in 1994, in Louisiana in 1962, in Mississippi in 2004, in South Carolina in 2020, and in Texas in 1958.</p>	<p>1. Global Biodiversity Information Facility. (n.d.). <i>Cyperus blepharoleptos</i> Steud. <i>Cyperus Blepharoleptos</i> Steud. Retrieved October 1, 2021, from https://www.gbif.org/species/2710884 2. McLaurin, C.S., Wersal, R.M., and Daniel, W.M., 2021, <i>Cyperus blepharoleptos</i> Steud.: U.S. Geological Survey, Nonindigenous Aquatic Species Database, Gainesville, FL, https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=2819, Revision Date: 8/26/2019, Access Date: 10/23/2021</p>
3.01	<p>1. Naturalized in 4 counties in south Florida; Collier County, Glades County, Hendry County, and Palm Beach County 2. <i>C. blepharoleptos</i> is found in the wild in multiple counties throughout Florida 3. "It is reported for the first time in Mississippi....In the southeastern United States, <i>O. cubense</i> is found sporadically in Florida, southern Georgia, southern Alabama, Louisiana, and coastal Texas."</p>	<p>1. The Institute for Regional Conservation. (n.d.). <i>Cyperus blepharoleptos</i> Steud. The Floristic Inventory of South Florida. 2. Wunderlin, R. P., B. F. Hansen, A. R. Franck, and F. B. Essig. 2021. Atlas of Florida Plants (http://florida.plantatlas.usf.edu/). [S. M. Landry and K. N. Campbell (application development), USF Water Institute.] Institute for Systematic Botany, University of South Florida, Tampa. https://regionalconservation.org/ircs/database/plants/PlantPage.asp?TXCODE=Cypeblep 3. Charles T. Bryson, Victor L. Maddox, and Richard Carter "Spread of Cuban Club-Rush (<i>Oxycaryum cubense</i>) in the Southeastern United States," <i>Invasive Plant Science and Management</i> 1(3), 326-329, (1 July 2008). https://doi.org/10.1614/IPSM-08-083.1</p>
3.02	<p>1. Interest in floating islands in Florida lakes has recently increased due to problems associated with their accumulation along shorelines, which may block lake-access points, interfere with recreation and navigation 2. The tussocks have been observed blocking boat launches and impede navigation and recreation within waterbodies</p>	<p>1. Watson, A. F., & Madsen, J. D. (2014). The effect of herbicide and growth stage on Cuban club-rush (<i>Oxycaryum cubense</i>) contro. <i>Journal of Aquatic Plant Management</i>, 52, 71–74. http://www.apms.org/wp/wp-content/uploads/japm-52-02-71.pdf 2. McLaurin, C.S., Wersal, R.M., and Daniel, W.M., 2021, <i>Cyperus blepharoleptos</i> Steud.: U.S. Geological Survey, Nonindigenous Aquatic Species Database, Gainesville, FL, https://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=2819, Revision Date: 8/26/2019, Access Date: 10/1/2021</p>
3.03		
3.04	<p>1. "...shade out and displace desirable submersed and emergent vegetation. Water below extensive stands of floating islands is often low in dissolved oxygen and high in organic matter, thus water quality is poor for fisheries habitat. Extensive growth of floating islands can also degrade local wildlife habitat. Unmanaged floating islands play a role in succession from open water to marshes and swamps." 2. "Water below tussocks is typically anaerobic and heavily laden with organic material, therefore unsuitable for fish habitat." 3. "Water below extensive</p>	<p>1. Mallison, C.T., R. K. Stocker, and C. E. Cichra. 2001. Physical and vegetative characteristics of floating islands. <i>Journal of Aquatic Plant Management</i>. 39:107-111. 2. Alam, S. K., L. A. Ager, T. M. Rosegger, and T. R. Lange. 1996. The effects of mechanical harvesting of floating plant tussock communities on water</p>
3.05	<p>stands of floating islands is often low in dissolved oxygen and high in organic matter, thus water quality is poor for fisheries habitat."</p>	<p>quality in Lake Istokpoga, Florida. <i>Lake Reserv. Manage.</i> 12: 455-461. 3. Mallison, C. T., Stocker, R. K., & Cichra, C. E. (2001). Physical and vegetative characteristics of floating islands. <i>Journal of Aquatic Plant Management</i>, 39, 107-111.</p>

4.01	1. "Purple nutsedge (<i>Cyperus rotundus</i> L.), a troublesome weed, is economically damaging weed, which is widely naturalized in the tropical and subtropical regions of the world. This weed has been reported to cause 20–90% yield losses in various agronomic and horticultural crops across the world. Perennial nature	1. Peerzada, Arslan Masood. "Biology, Agricultural Impact, and Management of <i>Cyperus Rotundus</i> L.: The World's Most Tenacious Weed." <i>Acta physiologiae plantarum</i> 39.12 (2017): 1–14. Web. 2. BRYSON, C. T., & CARTER, R. (2004). <i>Biology of Pathways for Invasive Weeds</i> . <i>Weed Technology</i> , 18(ep1)
4.02	1-2. Seed lacks spines, burrs, and or thorns used in a defensive	1. <i>Oxycaryum cubense</i> . (n.d.). [Photograph].
4.03	lack of reported/suggested allelopathy; no evidence that <i>C. blaepharoleptos</i> is allelopathic in natural settings and or was used to suppress weeds	
4.04	1-2. <i>C. blaepharoleptos</i> is not in a taxonomic family of parasitic plants.	1. Integrated Taxonomic Information System. (n.d.). <i>Oxycaryum cubense</i> (Poepp. & Kunth) Lye. Retrieved September 24, 2021, from https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=518065#null 2. Nickrent, D. (1997). Parasitic Plant Classification. The Parasite Plant Connection. https://parasiticplants.siu.edu/ListParasites.html
4.05	1. Insufficient data for a yes answer, but "is a major food of US mallard ducks"	1. Original source unavailable; Ramey, Victor. 1999. Wildlife, Wetlands, and those Other Plants. Aquaphyte Online. University of Florida, 1999. as cited in Global Invasive Species Database (2021) Species profile: <i>Oxycaryum cubense</i> . Downloaded from http://www.iucngisd.org/gisd/species.php?sc=1231 on 27-09-2021.
4.06	1. lack of evidence of toxicity, 2. Major food source for US mallard ducks	2. Original source unavailable; Ramey, Victor. 1999. Wildlife, Wetlands, and those Other Plants. Aquaphyte Online. University of Florida, 1999. as cited in Global Invasive Species Database (2021) Species profile: <i>Oxycaryum cubense</i> . Downloaded from http://www.iucngisd.org/gisd/species.php?sc=1231 on 27-09-2021.
4.07	lack of evidence	
4.08	lack of evidence	
4.09	1. <i>O. cubense</i> is a vigorous invasive aquatic plant"	1. Charles T. Bryson, Victor L. Maddox, and Richard Carter "Spread of Cuban Club-Rush (<i>Oxycaryum cubense</i>) in the Southeastern United States," <i>Invasive Plant Science and Management</i> 1(3), 326-329, (1 July 2008). https://doi.org/10.1614/IPSM-08-083.1
4.10	Lack of evidence	
4.11	Cuban bulrush is a floating aquatic plant; 1. "O. cubense is a vigorous invasive aquatic plant"	1. Charles T. Bryson, Victor L. Maddox, and Richard Carter "Spread of Cuban Club-Rush (<i>Oxycaryum cubense</i>) in the Southeastern United States," <i>Invasive Plant Science and Management</i> 1(3), 326-329, (1 July 2008). https://doi.org/10.1614/IPSM-08-083.1
4.12	1. aquatic, not a climbing vine	

5.01	1. "It forms transient floating mats and rafts"	1. Charles T. Bryson, Victor L. Maddox, and Richard Carter "Spread of Cuban Club-Rush (<i>Oxycaryum cubense</i>) in the Southeastern United States," <i>Invasive Plant Science and Management</i> 1(3), 326-329, (1 July 2008). https://doi.org/10.1614/IPSM-08-083.1
5.02	1. "O. cubense is a vigorous invasive aquatic plant"	1. Charles T. Bryson, Victor L. Maddox, and Richard Carter "Spread of Cuban Club-Rush (<i>Oxycaryum cubense</i>) in the Southeastern United States," <i>Invasive Plant Science and Management</i> 1(3), 326-329, (1 July 2008). https://doi.org/10.1614/IPSM-08-083.1
5.03	1. "Order: Poales"	1. Integrated Taxonomic Information System. (n.d.). <i>Oxycaryum cubense</i> (Poepp. & Kunth) Lye. Retrieved September 24, 2021, from https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=518065#null
5.04	1. "Family: Cyperaceae"	1. Integrated Taxonomic Information System. (n.d.). <i>Oxycaryum cubense</i> (Poepp. & Kunth) Lye. Retrieved September 24, 2021, from https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=518065#null
6.01	1. has rhizomes, does not have tubers/corms/stolons	1. Charles T. Bryson, Victor L. Maddox, and Richard Carter "Spread of Cuban Club-Rush (<i>Oxycaryum cubense</i>) in the Southeastern United States," <i>Invasive Plant Science and Management</i> 1(3), 326-329, (1 July 2008). https://doi.org/10.1614/IPSM-08-083.1
6.02	1. plant/taxon has a widespread distribution	1. Kew Royal Botanical Gardens. (n.d.). <i>Cyperus</i> L. Plants of the World Online Kew Science. Plants of the World Online. Retrieved October 1, 2021, from http://www.plantsoftheworldonline.org/taxon/urn:lsid:ipni.org:names:330001-2
6.03	1. "75% germination" 2. Produces viable seeds 3. "...may grow from a seed or a rhizome."	1. Kew Royal Botanic Gardens. (n.d.). Seed Information Database: Search Results. Kew Royal Botanic Gardens Seed Information Database. Retrieved September 24, 2021, from http://data.kew.org/sid/SidServlet?ID=16724&Num=939#Literature 2. Jackson Jablonski, pers. comm. on 10/12/2021. 3. Global Invasive Species Database (2021) Species profile: <i>Oxycaryum</i>
6.04	No documented evidence of hybridization occurring naturally in the wild	
6.05	1. <i>Cyperus/Oxycaryum</i> genus has bisexual florets 2. "Self-pollination occurs in sedges."	1. Cyperaceae, K Hoenselaar, B. Verdcourt & H. Beentje. <i>Hypolytrum</i> , D Simpson. <i>Fuirena</i> , M Muasya. <i>Flora of Tropical East Africa</i> . 2010 as referenced in Kew Royal Botanical Gardens. (n.d.). <i>Cyperus</i> L. Plants of the World Online Kew Science. Plants of the World Online. Retrieved October 1, 2021, from http://www.plantsoftheworldonline.org/taxon/urn:lsid:ipni.org:names:330001-2 2. Nickrent, D. (1997). <i>Parasitic Plant Classification</i> . The Parasite Plant Connection. https://parasiticplants.siu.edu/ListParasites.html

6.06	1. Taxon does not require specialist pollinators and has document	1. U.S. Army Corps of Engineers. (n.d.). Cuban bulrush. Great Lakes and Mississippi River Interbasin Study. https://glmr.is.anl.gov/documents/docs/ans/Oxycaryum_cubense.pdf 2. Grasses and Sedges and Rushes of Palm Beach and Martin Counties, Florida. (n.d.). Sedges and Rushes: General Information and Biology. http://www.floridagrasses.org/Master_data/Sedge_biology.html
6.07	1. "...is a rhizomatous...its scaly stolons often mass together or with the rhizomes of other plants to form floating mats" 2. "Roots form new stolons and new leaves can sprout from new roots and form thick stands."	1. Global Invasive Species Database (2021) Species profile: <i>Oxycaryum cubense</i> . Downloaded from http://www.iucngisd.org/gisd/species.php?sc=1231 on 27-09-2021. 2. U.S. Army Corps of Engineers. (n.d.). Cuban bulrush. Great Lakes and Mississippi River Interbasin Study. https://glmr.is.anl.gov/documents/docs/ans/Oxycaryum_cubense.pdf
7.01	1. " <i>Oxycaryum cubense</i> (Cuban bulrush) is a perennial" 2. "Cuban culrush is a floating, epiphytic perennial herb" 3. "Cuban club-rush...is a floating, epiphytic perennial aquatic plant."	1. Global Invasive Species Database (2021) Species profile: <i>Oxycaryum cubense</i> . Downloaded from http://www.iucngisd.org/gisd/species.php?sc=1231 on 24-10-2021. 2. McLaurin, C.S., Wersal, R.M., and Daniel, W.M., 2021, <i>Cyperus blepharoleptos</i> Steud.: U.S. Geological Survey, Nonindigenous Aquatic Species Database, Gainesville, FL, https://nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=2819 , Revision Date: 8/26/2019, Access Date: 10/23/2021 3. Watson, A. F., & Madsen, J. D. (2014). The effect of herbicide and growth stage on Cuban club-rush (<i>Oxycaryum cubense</i>) contro. <i>Journal of Aquatic Plant Management</i> , 52, 71–74. http://www.apms.org/wp/wp-content/uploads/japm-52-02-71.pdf
7.02	1-2. <i>C. blepharoleptos</i> has been observed to grow around boat launches	1. Watson, A. F., & Madsen, J. D. (2014). The effect of herbicide and growth stage on Cuban club-rush (<i>Oxycaryum cubense</i>) contro. <i>Journal of Aquatic Plant Management</i> , 52, 71–74. http://www.apms.org/wp/wp-content/uploads/japm-52-02-71.pdf 2. McLaurin, C.S., Wersal, R.M., and Daniel, W.M., 2021, <i>Cyperus blepharoleptos</i> Steud.: U.S. Geological Survey, Nonindigenous Aquatic Species Database, Gainesville, FL, https://nas.er.usgs.gov/queries/FactSheet.aspx?speciesID=2819 , Revision Date: 8/26/2019, Access Date: 10/1/2021
7.03	No evidence that <i>C. blepharoleptos</i> is sold commercially or used for horticulture	
7.04	Lack of positive evidence; plant not used as an ornamental or for horicultural/agricultural purposes	

7.05	1-2. Seeds do not appear to have morphological features that facilitate wind dispersal	1. Oxycaryum cubense. (n.d.). [Photograph]. http://www.floridagrasses.org/Sedge_images/Ox_cubense4.jpg 2. Murray, A. & University of Florida. (1999). Cyperus blepharoleptos [Photograph]. Burhead Sedge, Oxycaryum Cubense (Syn. Scirpus Cubensis). https://plants.ifas.ufl.edu/site/assets/files/1391/scicub2.0x1800.jpg
7.06	1. "The corky, buoyant achenes of <i>O. cubense</i> are adapted to dispersal by moving water." 2. achenes have a spongy, suberized pericarp that allows them to float 3. "achenes disperse by flotation"	1. Charles T. Bryson, Victor L. Maddox, and Richard Carter "Spread of Cuban Club-Rush (<i>Oxycaryum cubense</i>) in the Southeastern United States," <i>Invasive Plant Science and Management</i> 1(3), 326-329, (1 July 2008). https://doi.org/10.1614/IPSM-08-083.1 2. Haines RW, Lye KA. 1983. <i>The Sedges and rushes of East Africa</i> . Nairobi,
7.07		Kenya: East African Natural History Society. 404 pp as referenced in Watson, A. F., & Madsen, J. D. (2014). 3. <i>Grasses and Sedges and Rushes of Palm Beach and Martin Counties, Florida</i> . (n.d.). <i>Sedges and Rushes: General Information and Biology</i> . http://www.floridagrasses.org/Master_data/Sedge_biology.html
7.08	1-2. "dispersed into North America from the West Indies or South America by migratory birds..." 3. "Achenes disperse...by traveling in the digestive tracts of waterfowl."	1. Charles T. Bryson, Victor L. Maddox, and Richard Carter "Spread of Cuban Club-Rush (<i>Oxycaryum cubense</i>) in the Southeastern United States," <i>Invasive Plant Science and Management</i> 1(3), 326-329, (1 July 2008). https://doi.org/10.1614/IPSM-08-083.1 2. The effect of herbicide and growth stage on Cuban club-rush (<i>Oxycaryum cubense</i>) contro. <i>Journal of Aquatic Plant Management</i> , 52, 71-74. http://www.apms.org/wp/wp-content/uploads/japm-52-02-71.pdf 3. <i>Grasses and Sedges and Rushes of Palm Beach and Martin Counties, Florida</i> . (n.d.). <i>Sedges and Rushes: General Information and Biology</i> . http://www.floridagrasses.org/Master_data/Sedge_biology.html
8.01	1-2. Seed does not appear to have adaptations that allow it to temporarily attach to non-avian animals 3. Seed is not mentioned having any adaptations allowing it to temporarily attach to non-avian animals in literature describing the seeds	1. Oxycaryum cubense. (n.d.). [Photograph]. http://www.floridagrasses.org/Sedge_images/Ox_cubense4.jpg 2. Murray, A. & University of Florida. (1999). Cyperus blepharoleptos [Photograph]. Burhead Sedge, Oxycaryum Cubense (Syn. Scirpus Cubensis). https://plants.ifas.ufl.edu/site/assets/files/1391/scicub2.0x1800.jpg 3. Haines RW, Lye KA. 1983. <i>The Sedges and rushes of East Africa</i> . Nairobi,
8.02		Kenya: East African Natural History Society. 404 pp as referenced in Watson, A. F., & Madsen, J. D. (2014).

8.03	1. Evidence for dispersal by traveling in the digestive tract of waterfowl and other seed eaters for sedges in general but not specifically for <i>C. blaepharoleptos</i> . "Achenes [of sedges] disperse by...traveling in the digestive tracts of waterfowl and probably other seed eaters."	1. Grasses and Sedges and Rushes of Palm Beach and Martin Counties, Florida. (n.d.). Sedges and Rushes: General Information and Biology. http://www.floridagrasses.org/Master_data/Sedge_biology.html
8.04	lack of evidence	
8.05	lack of evidence	