

Conservation Assessment Module (CAM) beta

CAM was developed in collaboration with the Royal Botanic Gardens, Kew

Sara Barrios, Alex Roberts & Jean Linsky

Royal Botanic Gardens, Kew

Article created December 2013

Applies to BRAHMS v 7.3.12 and later

Contents

INTRODUCTION	2
GETTING STARTED	3
CREATING THE RDE FILE FOR TAXA	3
OPENING THE CAM FORM FOR THE FIRST TIME	3
CAM LOOKUP OPTIONS.....	3
SOME FURTHER GENERAL NOTES	4
NAME/TAXONOMY.....	5
BOTANICAL RECS (BOTANICAL RECORDS)	6
GEO (DISTRIBUTION INFORMATION)	7
POP (POPULATION INFORMATION)	9
ECOL (ECOLOGY INFORMATION).....	10
USES (SPECIES UTILISATION)	11
SERVICES.....	13
THREATS	14
CONSERVE (CONSERVATION ACTIONS IN PLACE AND NEEDED)	15
REDUCTION	16
ASSESS	17
BIBLIO (BIBLIOGRAPHY)	18
CREDITS	19
REPORT/EXPORT (DATA TRANSFER)	20
SAVING YOUR ASSESSMENT TO THE BRAHMS DATABASE	23
SUBMISSION OF ASSESSMENTS TO IUCN	23
REFERENCES.....	24

Introduction

The Conservation Assessment Module (CAM) records and reports on conservation assessment data, primarily IUCN 3.1 Red List Assessments. For information about the IUCN Red List assessment process, refer to the IUCN Red List Documentation: <http://www.iucnredlist.org/about/red-list-overview>

The CAM works from a form within the taxa RDE module of BRAHMS. The CAM form provides a series of data entry fields grouped according to different elements of a conservation assessment as shown on its various tabs.

CAM also links directly to specimen data from within the main database and has been designed to ease the process of data entry by providing some calculation tools. For example, country lists can be generated from specimen data rather than manually entering one by one and links to GeoCAT (<http://geocat.kew.org>) aid the calculation of geospatial aspects of the Red List process such as extent of occurrence (EOO) and area of occupancy (AOO) (Bachman *et al.* 2011).

In future releases it will be possible to export conservation assessment data from CAM directly to the IUCN Red List SIS (Species Information Service) database for ultimate inclusion on the [Red List](#).

The screenshot displays the Conservation Assessment Module (CAM) interface for the species *Actinostrobus acuminatus* Parl. The 'Geo' tab is active, showing various data entry fields and a taxa tree on the right.

Range description: SW Australia: from Three Springs south to Perth Region, in proximity of the coast.

Locality notes summary: [1 mile along Mc.Namara road] [16010]
[between Moore & Murchison Rivers"; "Swan River"] [13378]
0.8 km W of T-junction on Badgingarra West

Habitat notes summary:

Country list for CAM:

COUNTRY	PRESENCE	ORIGIN
Angola	Extant	Native
Anguilla	Extant	Native
Australia	Extant	Native

Assessment scale: Regional

Assessment area if regional/national: Only a regional assessment this one....

GeoCAT calculations:

Field	Value
Map status	Incomplete
Area of occupancy	22
Extent of occurrence	33
IUCN locations	44
Severely fragmented	Yes
Country total	3

Country list calculated from botanical records: 1
Australia

Update CAM country list from calculated [button]

Taxa tree (right side):

- Cupressaceae
 - Actinostrobus
 - Callitris
 - Callitris drummondii
 - Callitris macleayana
 - Callitris muelleri
 - Fitzroya
 - Glyptostrobus
 - Juniperus
 - Pinaceae
 - Abies
 - Abies concolor
 - Abies delavayi var. nukiangensis
 - Pinus
 - Pinus herreriae

Screenshot of the CAM showing the Geo (Geographic Information) tab

On the right-side of the CAM screen, extra tab options are provided to navigate using a taxa tree view, useful in large RDE files; a Stats option to summarise file content; a Locate option to help locate records; a Memo text area to help edit memo field data; and a Links tab with some useful web links.


Getting started

Creating the RDE file for taxa

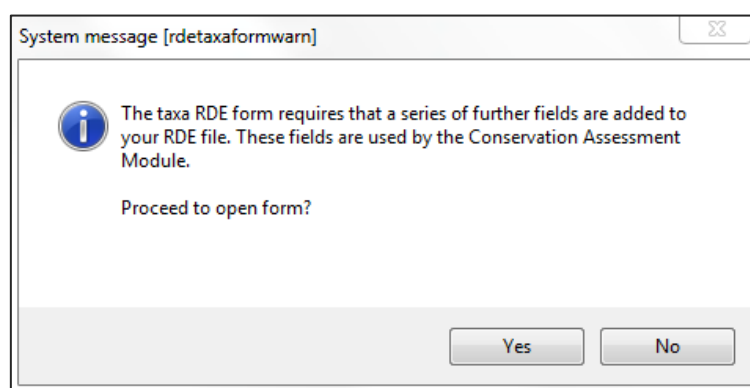
You can create a new RDE file from the system template and add one or more species names, building up the CAM data from a blank record. Another option, especially if you are working on several taxa is to query/extract these taxa and in the taxa extract file, use the 'copy/save as' toolbar to save the file as a taxa RDE file. This file will be auto-registered in your RDE manager and will already include a number of useful fields. There is no restriction on the number of taxa you include in the RDE file.

When you first open the CAM form, BRAHMS checks the names against your main species file and adds the database SPNUMBER if located. This species code is then used by CAM to locate botanical records in BRAHMS, facilitating the use of GeoCAT, as discussed below.

Opening the CAM form for the first time

- Open the taxa RDE containing the taxa to work with and 'assess'.
- Select the taxa you wish to assess - go to that record.
- Select the  toolbar (*View/edit data in form mode[F2]*) at the top of the BRAHMS window. The CAM will open in a new window.

When you open the form in a taxa RDE file, you may be prompted as follows:



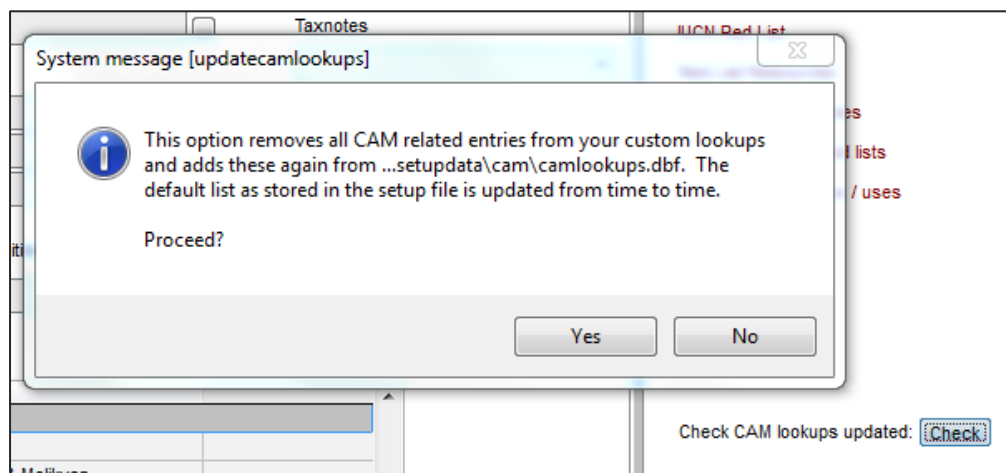
This is because the CAM module must add many new fields to the RDE file. If you opt to continue, all the required fields are auto-added to your RDE file.

CAM lookup options

If your custom lookup dictionary lacks any of the CAM lookup options, you can check and add these automatically using the option **Links > Check CAM lookups are updated**. The CAM lookup options are vital to make of this module correctly. The option checks all CAM lookup options and adds missing entries. NB: if you wish to ensure your CAM lookups are fully up to date, select **Admin > Custom lookups**, delete all records where FIELDGROUP = CAM and then return to the CAM Link tab to check/update the lookups.

Custom lookups [c:\brahmsdata-conifers\conifersb6\customlookups.dbf (alias= CUSTLOOK)]						
	tag	del	fieldgroup	field_name	abbreviation	value
			CAM	CONSINPL	1. Is there an Action Rec	1. Is there an Action Recovery Plan?
			CAM	CONSINPL	2. Is there a Systematic	2. Is there a Systematic Monitoring Scheme?
			CAM	CONSINPL	3. Have Conservation Site	3. Have Conservation Sites been Identified?
			CAM	CONSINPL	4. Does the Species Occur	4. Does the Species Occur in at Least One Protected Area?
			CAM	CONSINPL	4.1. If yes, indicate wha	4.1. If yes, indicate what percentage of the population is withir
			CAM	CONSINPL	5. Is there an Area Based	5. Is there an Area Based Regional Management Plan?
			CAM	CONSINPL	6. Is there invasive spec	6. Is there invasive species control or prevention?

The custom lookup dictionary show some of the many CAM entries.



Updating CAM lookups.

Some further general notes

- For all text boxes, double-click on text entered to view/edit the text in the additional Memo window in the right-side window.
- To add HTML mark-up to selected memo text highlight any text within the memos text editing window and then select the appropriate option below Memos (*i.e.* make bold, italicise or underline.)
- We suggest you italicise scientific names inside memo fields.

Name/taxonomy

Editing file c:\brahmsdata-conifers\savedfiles\taxextract_20-10-2013_at_18-31-56.dbf

CONSERVATION ASSESSMENT

Cupressaceae

Actinostrobus acuminatus Parl.

Name	Bot Recs	Geo	Pop	Ecol	Use	Service	Threat	Conserve	Reduction	Assess	Biblio	Credit	Report	Transfers
------	----------	-----	-----	------	-----	---------	--------	----------	-----------	--------	--------	--------	--------	-----------

Family Genus

Species epithet(s) Authors Rank

Publish date DD MM YYYY Taxon status Legitimacy

Published in

Taxnotes

These are the tax notes. These are the tax notes. These are the tax notes. These are the tax notes.

Synonym links

Taxstat	SynCat	Species
acc		Actinostrobus acuminatus Parl.
syn	HOM	= Callitris acuminata (Parl.) F. Muell.

Common names

Common name	Language	Primary(*)
Oak	English	*
Yew	Eastern Frisian	

Screenshot of the CAM showing the Name tab

Field(s)	Notes
Taxa fields and nomenclature	These fields should be filled in automatically. Check that all information is correct. Consult the following sources for information: The Plant List , World Check List of Selected Plant Families , Catalogue of Seed Plants of the West Indies and TROPICOS .
Synonyms	
Taxnotes	Record here if there have been recent taxonomic changes or if there are any current taxonomic doubts or debates about the validity or identity of the taxon.
Common names	Where known, record common names along with the language of the common name and highlight the primary common name.

Botanical Recs (Botanical Records)

Editing file t:\ukotbrahms\brahms6\data-ukot-main\myrdefiles\taxon\redlisting\caribbean_spermacoce_sara.dbf

CONSERVATION ASSESSMENT

Rubiaceae

Spermacoce capillaris (Correll) Howard

Name Botanical Recs Geo Pop Ecol Uses Threats Conserve Assess Biblio Track Import/Export

TAG	DEL	CAM MAP	CAM ALT	CULT	COUNTRY	MAJOR	MINOR	GAZETTEER	ALT	MAX ALT	LAT	NS	LONG	EW	LLUNIT	LLRES	DAY	MONTH
*		*		F	Turks and	South C		South Caicos	9999	0	0000	N	00000	W	DD	10	11	2
*		*		F	Turks and	South C		South Caicos	9999	0	0000	N	00000	W	DD	10	25	4
*		*		F	Turks and	South C		The Valley	0	0	103334	N	83333	W	DD	0.10	23	10
*		*		F	Turks and	South C		The Valley	0	0	103667	N	16667	W	DD	0.10	23	10
*		*		F	Turks and	East Ca		East Caicos	0	0	103667	N	33333	W	DD	0.10	3	11
*		*		F	Turks and	South C		South Caicos	0	0	100000	N	00000	W	DD	0.10	25	3
*		*		F	Turks and	South C		Duck Pond Pl	0	0	103334	N	66667	W	DD	0.10	24	10
*		*		F	Turks and	South C		The Valley	0	0	103667	N	16667	W	DD	0.10	22	10
*		*		F	Turks and	South C		Lightbourne's	0	0	100000	N	66667	W	DD	0.10	24	10
*		*		F	Turks and	South C		High Point	11	20	0000	N	16667	W	DD	0.10	25	10
*		*		F	Turks and	South C		Cockburn Town	9999	0	0000	N	00000	W	DD	200m	0	0

Total records: 11 CAM map: 11 CAM alt: 11 ☒ Include botanical records linked to synonyms of current name

Select all No map No alt Sort on: tag ☒ Tag all Clear tags Copy tags to main file

Screenshot of the CAM showing the Botanical Recs (Botanical Records) tab

This tab allows us to see all herbarium specimens held in the database for the species being assessed. This is where you select the specimen data that will be included in the assessment.

First of all, it is important to confirm that all digitised records have been imported for use in CAM. Make sure the “Include botanical records linked to synonyms of current name” box is selected to include all collection records. This ensures that all location and all habitat information are available for use in the assessment. This information is shown in both the “Geo” and “Ecology” tabs.

Press the “Select all” button and select “yes” to the ‘select all specimens’ question. Hide or delete records which may not be relevant or useful (e.g. if a collection record is present which is only geo-referenced to country level when other more detailed collection records are present for that same country), by double clicking the asterisk of that record under the “CAM MAP” column of the table. This will remove the asterisk and de-select the botanical record.

There are options for both mapping and for altitude calculation. For example, you may wish to exclude a botanical record because the geo-reference precision is too low, but you wish to include the reported altitude of the record because that is accurate. In this case you would asterisk the relevant record for the CAM ALT field, but leave the CAM MAP field empty.

Geo (Distribution Information)

Editing file n:\ukotbrahms\brahms_ukots_multiuser_database\myrdefiles\taxon\redlisting\caribbean_spermacoe_sara.dbf

CONSERVATION ASSESSMENT

Rubiaceae

Spermacoe capillaris (Correll) Howard

Name Botanical Recs **Geo** Pop Ecol Uses Threats Conserve Assess Biblio Track Import/Export

Range description

This species is endemic to the Turks and Caicos Islands and it was historically recorded from South Caicos (Correll 1996). During surveys carried out in November 2009 this species was discovered on the island of East Caicos. The Extent of Occurrence (EOO) is estimated to ranges from 29km² to 147km² and the Area of Occupancy (AOO) from 16km² to 76km². EOO and AOO were calculated using GeoCAT tool (Bachman et al. 2011). We considered to have two IUCN locations, considering the threat posed by feral livestock, that could graze or disturb the two subpopulations very rapidly.

Country list for CAM

COUNTRY	PRESENCE	ORIGIN
Turks and Caicos Islands	Extant	Native

Country list calculated from botanical records: 1

Turks and Caicos Islands

Update selected from calculated

All locality notes **All habitat notes**

alongside road [10520]
 alongside trail [10547]
 Back Road West of East Ridge, Southeast [10536]
 on ridge between Cockburn Harbour and

Assessment scale

Assessment area if regional/national


GeoCAT calculations

Area of occupancy 16-147
 Extent of occurrence 29-76
 IUCN locations 2
 Severely fragmented
 Country total 1

Screenshot of the CAM showing the Geo (Geographic Information) tab

The following information sources are available for consultation: National or regional floras, World Checklist of Selected Plant Families, distribution from collection information, known distribution from assessment collaborators, Tropicos, various plant catalogues, etc. Also refer to species pages already on the IUCN Red List for examples of detail or phrasing.

Field(s)	Notes
Range description	Summarise the current information available for the geographic range for the species. This range may relate to countries for more widespread species or, for example, to National Parks for more restricted species. Use "All locality notes" and "All habitat notes" sections of the tab for any relevant and useful information. Note if the species is a variety endemic to a specific area and indicate the range of the whole species (e.g. 'X is unique to Y' or 'the species has a broad Neotropical distribution.')
IUCN locations	Enter the number of locations, applying the IUCN concept of location. Please refer to the Guidelines for Using the IUCN Red List Categories and Criteria . Use 'greater than 10' if the number of locations exceeds 10.
Country list	Make sure this list is complete with presence data for all native countries. Use the "Update selected from calculated" button to automatically fill this

	<p>window with the countries previously entered in Botanical Records. Add any missing countries by pressing the plus button below the “<i>Country list for CAM</i>” box and selecting the countries from the internal lookup. If necessary, any entry made with the <i>plus</i> button can be deleted by selecting the entry followed by the X button (next to the <i>plus</i> button). Default values for ‘Presence’ and ‘Origin’ are Extant and Native respectively, but you can pick different options e.g. when there is uncertainty you may wish to pick ‘Possibly Extant’.</p> <p>Note: the country total refers to the number of countries where the species occurs. This field is filled automatically by totalling the number of countries entered in the ‘<i>Country list for CAM</i>’.</p>
Assessment scale	Here you can choose the assessment scale. For all global IUCN assessments, the scale level should be <i>Global</i> .
GeoCAT calculations	<p>CAM has an automatic link to GeoCAT mapping tool used to calculate the Area of Occupancy (AOO) and the Extent of Occurrence (EOO) of the species. For more details about this tool, please consult: http://www.kew.org/science-research-data/kew-in-depth/gis/species-conservation/geocat/index.htm . Press the  GeoCAT toolbar to prepare and send data from the RDE record to GeoCAT. This will open the GeoCAT application on your web browser. Note that GeoCAT does not work with older version of IE or FireFox. On GeoCAT, select ‘Enable EOO/AOO’ to calculate EOO and AOO. From the web browser you can save GeoCAT data as .geocat, .csv and .kml formats.</p>
AOO/EOO	Record these values on CAM if used in assessment to fulfil Criterion B (see Assess tab notes). This may be in range format if a maximum and minimum AOO and EOO are used e.g. 150 – 200 km ² . Enter the numbers in the following format ###-#,###. Note: do not use decimals in the numbers, just round to the nearest whole number. For more information on formatting see the ‘Documentation Standards and Consistency Checks for IUCN Red List Assessments and Species Accounts’.
Map status	Select the appropriate option from the drop-down list.
Severely fragmented	Use the drop-down list to select ‘yes’, ‘no’ or ‘unknown’. Check IUCN Guidelines for the correct definition of severely fragmented.

Pop (Population Information)

Editing file r:\ukotbrahms\brahms_ukots_multiuser_database\myrdefiles\taxon\redlisting\caribbean_spermacoce_sara.dbf

CONSERVATION ASSESSMENT

Rubiaceae

Spermacoce capillaris (Correll) Howard

Name Botanical Recs Geo **Pop** Ecol Uses Services Threats Conserve Reduction Assess Biblio Credits Report/Export

Population notes

Extensive field work was carried out on Turks and Caicos, to gather number of individuals. From the surveyed area, the known number of individuals in its native habitat ranges between 290 to 400 approximately.

Population trend: Decreasing

Population data

Item	Description	Qualifier
Continuing decline in	AOO	Observed

+ X Continuing decline in AOO Observed

Population size: 290-400

Largest subpopulation (mature individuals): 0

Number of sub populations: 0

All individuals in one subpopulation:

Generation Length: 0

Screenshot of the CAM showing the Pop (Population) tab

Field(s)	Notes
Population notes	Summarise the information available for size and trend of global population. Notes available can include population numbers, whether the extent of the population range is known or unknown, if there have been recent population surveys and if the species is described as rare, common, frequent, etc. over all or part of its range (this information may be found on collection labels). Also include information on any known trends.
Population trend	If there is a continuing decline in one aspect of the population, select the appropriate option from the drop-down list. Leave blank if unknown, or not applicable.
Population data	If there is either a continuing decline or an extreme fluctuation in any of the aspects of population, select the appropriate options from the drop-down lists (see arrows in above diagram). Leave blank if unknown or not applicable.
Population size	Enter the population size, if known (this can be a range if the exact number is not known). Leave blank if unknown.

Largest subpopulation (mature individuals)	Enter the largest number of mature individuals in a single subpopulation. Leave blank if unknown.
Subpopulations	Enter the number of subpopulations, or leave blank if unknown.
All individuals in one subpopulation	Select yes or no using the drop-down list.
Generation Length	Enter generation length. Leave blank if unknown.

Ecol (Ecology Information)

Editing file r:\ukotbrahms\brahms_ukots_multiuser_database\myrdefiles\taxon\redlisting\caribbean_spermacoce_sara.dbf

CONSERVATION ASSESSMENT

Rubiaceae

Spermacoce capillaris (Correll) Howard

Name Botanical Recs Geo Pop **Ecol** Uses Services Threats Conserve Reduction Assess Biblio Credits Report/Export

Habitats and ecology

This short-lived perennial small shrub prefers thin soils and crevices on the rock flats, with little or open coppice (Correll and Correll 1996). It grows on limestone scrub.

All locality notes All habitat notes

Disturbed area. [10520]
Dune scrub. [10430]
Exposed hillside [10550]
In thin soil on rock flats in somewhat open coppice. [3440]

Habitat list codes

HABITAT TYPE	SUITABILITY	MAJOR IMPORTANCE
3.5 Shrubland - Subtropical/Tropical Dry	Suitable	Very

+ X

Suitable

Alt min (m) Alt max (m)

Alt calc from botanical records 11 20

Alt range for CAM 11 20

Adjusted altitude

Realm Neotropical + X Neotropical

Habit Shrub + X Shrub - small

System

Screenshot of the CAM showing the Ecol (Ecology) tab

Field(s)	Notes
Habitats and Ecology	Summarise general habit of the species (i.e. tree/shrub, annual/perennial etc.) and features which may affect its conservation status (e.g. pollination, seed distribution, or whether it is an early disturbance colonizer). Also include the habitat in which the species is found. Include altitude information, soil type and associated species, if known. Make use of the "All locality notes" and "All habitat notes" sections of the tab for relevant and useful information from botanical records. Note:

	Descriptions of IUCN classifications for habitat types, threats, conservation actions in place/needed and research needed classifications can be found at: http://www.iucnredlist.org/technical-documents/classification-schemes
Habitat list codes	Enter all habitat types for the species by clicking the <i>plus</i> button below the “Habitat list codes” window and selecting the appropriate “Habitat Type”; include the “Suitability” and “Major Importance” using the drop-down lists.
Alt calc from botanical records and Alt range for CAM	Alt calc from botanical records and Alt range for CAM will be filled automatically from the Botanical Records tab. These can be entered manually if there is no altitude information in botanical records or if the known altitude range exceeds that from the botanical records. This information can be found on herbarium specimens or from observational or literature records.
Realm	Enter the realm(s) in which the species is present by selecting from the drop-down list
Habit	Enter the habit type(s) of the species by selecting from the drop-down list.
System	

Uses (Species Utilisation)

Editing file r:\ukotbrahms\brahms_ukots_multiuser_database\myrdefiles\taxon\redlisting\caribbean_spermacoce_sara.dbf

CONSERVATION ASSESSMENT
Rubiaceae
Spermacoce capillaris (Correll) Howard

Name Botanical Recs Geo Pop Ecol **Uses** Services Threats Conserve Reduction Assess Biblio Credits Report/Export

Taxa Stats Locate Memos Links

Click and expand to locate taxa
+ Rubiaceae

Description of uses
There are no known uses for this species.

Wild crop relative No

Use status Species not utilized

CTES status Not listed

Uses codes

Use	Source	Form removed/utilized	Scale options

Non-consumptive use

Explanation of non-consumptive use

Trend in level of total offtake from wild sources

Trend in level of total offtake from domesticated sources

Form always on top Exit

Screenshot of the CAM showing the Uses tab

Field(s)	Notes
Description of uses	Summarise any known use and/or trade information for the species (e.g. if it is a timber species, if the fruit is eaten or if it is used in horticulture). Please state if no uses are known.
Wild crop relative	Enter whether or not the species is a wild crop relative. Select yes, no or unknown from the drop-down list. Use the following resources if necessary: http://www.cwrdiversity.org/checklist .
Use status	Enter the Use status of the species. (<i>i.e.</i> if the species is used or not or if there is no information) Select this from the drop-down.
CITES status	Enter the CITES status of the species. Use http://www.cites.org/eng/resources/species.html to see if the species is listed. If so, indicate in which Appendix it is listed; if the species is not listed, select 'not listed'. Select this from the drop-down.
Uses codes	Enter all uses for the species by clicking the <i>plus</i> button below the "Uses codes" window. Include "Source", "Form removed/utilized" and "Scale options" using the drop-down lists.
Non-consumptive use	Select yes, no or unknown, using the drop-down list. Then, if necessary, add a free text explanation in the box below.
Trend in level of total off-take from wild sources	Select Increasing, Decreasing, Stable or Unknown using the drop-down list.
Trend in level of total off-take from domesticated sources	Select Increasing, Decreasing, Stable, Not cultivated or Unknown using the drop-down list.

Services

Editing file r:\ukotbrahms\brahms_ukots_multiuser_database\myrdefiles\taxon\redlisting\caribbean_spermacoce_sara.dbf

CONSERVATION ASSESSMENT

Rubiaceae

Spermacoce capillaris (Correll) Howard

Map:

Navigation: Name Botanical Recs Geo Pop Ecol Uses **Services** Threats Conserve Reduction Assess Biblio Credits Report/Export Taxa Stats Locate Memos Links

Services

Service	Importance	Range of benefit

Importance: Range of benefit:

Ecosystem Service status:

Form always on top ☒

Screenshot of the CAM showing the Services tab

Field(s)	Notes
Services	Enter all services that the species provides by clicking the <i>plus</i> button below the box. Also select "Importance" and "Range of benefit" using the drop-down lists.
Ecosystem Service status	Select the appropriate entry using the drop-down list.

Threats

Editing file r:\ukotbrahms\brahms_ukots_multiuser_database\myrdefiles\taxon\redlisting\caribbean_spermacoce_sara.dbf

CONSERVATION ASSESSMENT

Rubiaceae

Spermacoce capillaris (Correll) Howard

Name Botanical Recs Geo Pop Ecol Uses Services Threats Conserve Reduction Assess Biblio Credits Report/Export Taxa Stats Locate Memos Links

Major threats

The major threat to this species is the one posed by grazing and disturbance by feral livestock. Wild donkeys, horses and cows roam freely on the areas where this species occurs and can potentially feed from it or trample it. Additionally, on South Caicos this species grows on areas and habitats impacted by development and human recreation activities. In the future, climate change could pose further threat since this species grown on areas of low elevation, near intertidal creeks, where sea level rise could have serious implications.

Threat status

Threat codes

THREAT	TIMING	SCOPE	SEVERITY	SCORE	STRESSES
1.3 Residential & commercial development - Tourism	Ongoing	Unknown	Causing/Could cause		1.2 Ecosystem degradation
6.1 Human intrusions & disturbance - Recreation	Ongoing	Unknown	Causing/Could cause		1.2 Ecosystem degradation
8.1.1 Invasive & other problematic species & genetic material	Ongoing	Unknown	Causing/Could cause		2.2 Species disturbance
11.5 Climate change & severe weather - Other	Ongoing	Unknown	Unknown		2.1 Species mortality

Threats summary

Development [10522]
Disturbance [10547]
Grazing [10520]
Unknown [10524]

The major threat to this species is the one posed by grazing and disturbance by feral livestock. Wild donkeys, horses and cows roam freely on the areas where this species occurs and can potentially feed from it or trample it. Additionally, on South Caicos this species grows on areas and habitats impacted by development and human recreation activities. In the future, climate change could pose further threat since this species grown on areas of low elevation, near intertidal creeks, where sea level rise could have serious implications.

Add html markup to selected memo text

B **I** **U**

☒ Form always on top **Exit**

Screenshot of the CAM showing Threats tab

Field(s)	Notes
Major Threats	Summarise the major known threats affecting or likely to affect the species. Try to indicate whether these threats are historical threats that caused the populations to decline or current threats affecting the population now and whether they are likely to affect the population in the future. Be as specific as possible about activities (e.g. specific roads being constructed) and locations (i.e. if a major threat is in one country or district only). Add any useful or relevant information from Botanical Records that appear in the Threats summary window.
Threat codes	Enter all threats to the species by clicking the <i>plus</i> button and selecting the appropriate threat. Important: read the description of each threat code carefully in order to select the correct threat category. Also select "Timing", "Scope", "Severity" and "Stresses" using the drop-down lists in each column. At the moment the score selection is not working.

Conserve (Conservation actions in place and needed)

Editing file r:\ukotbrahms\brahms_ukots_multiuser_database\myrdefiles\taxon\redlisting\caribbean_spermacoce_sara.dbf

CONSERVATION ASSESSMENT

Rubiaceae

Spermacoce capillaris (Correll) Howard

Name Botanical Recs Geo Pop Ecol Uses Services Threats **Conserve** Reduction Assess Biblio Credits Report/Export Taxa Stats Locate Memos Links

Conservation actions

A small amount of seed was collected and germination trials are being developed at Royal Botanic Gardens Kew. This species doesn't occur inside any protected areas. However, the island of East Caicos is not inhabited, reducing the pressure created by human related activities. The areas where this species occurs, specially in South Caicos, should be subjected to protection

Conservation actions in place

Action	Response
9. Is the Taxon Subject to Ex-situ Conservation?	Yes, over part of range

☐ ☒ Yes, over part of range

% protection in place

Conservation actions needed

Action
1.1 Land/Water protection - Site/area protection
2.1 Land/water management - Site/area management
4.3 Education & awareness - Awareness & communications

☐ ☒

Conservation research needed

Action
3.1 Monitoring - Population Trends
2.1 Conservation planning - Species Action/Recovery Plan

☐ ☒

A small amount of seed was collected and germination trials are being developed at Royal Botanic Gardens Kew. This species doesn't occur inside any protected areas. However, the island of East Caicos is not inhabited, reducing the pressure created by human related activities. The areas where this species occurs, specially in South Caicos, should be subjected to protection.

Add html markup to selected memo text

B **I** **U**

☒ Form always on top **Exit**

Screenshot of the CAM showing the Conserve (conservation actions in place and needed) tab

Field(s)	Notes
Conservation Actions	Summarise the conservation actions currently in place: <i>in situ</i> (e.g. if the species is present in protected areas or if there have been reintroduction efforts) and <i>ex situ</i> (e.g. if the species is in any living collection (seeds, plants). Also list all conservation actions needed to mitigate the threats causing the species decline. Note: Descriptions of IUCN definitions for 'habitat, threat, stress, conservation action in place/needed and research needed classifications' can be found at: http://www.iucnredlist.org/technical-documents/classification-schemes
% protection in place	From the drop-down list select an appropriate value to reflect the percentage of the population that is currently protected. Leave blank if unknown.
Conservation actions in place	Enter all actions in place by selecting the <i>plus</i> button and choosing from the drop-down list; include the appropriate response (i.e. over how much of range the action takes place or whether this information is unknown) from the drop-down list in the "Response" column of the table.
Conservation actions needed	Enter all actions needed by selecting the <i>plus</i> button and choosing from the drop-down list.
Conservation research needed	Enter all research needed by selecting the <i>plus</i> button and choosing from the drop-down list.

Reduction

Editing file r:\ukotbrahm\brahms_ukots_multisuser_database\myrdefiles\taxon\redlisting\caribbean_spermacoce_sara.dbf

CONSERVATION ASSESSMENT

Rubiaceae

Spermacoce capillaris (Correll) Howard

Name	Botanical Recs	Geo	Pop	Ecol	Uses	Services	Threats	Conserve	Reduction	Assess	Biblio	Credits	Report/Export
------	----------------	-----	-----	------	------	----------	---------	----------	-----------	--------	--------	---------	---------------

Past (over 10 years or 3 generations, whichever is the longer)

% change in past

Past population reduction basis

☐ a) direct observation
☐ b) an index of abundance appropriate for the taxon
☐ c) a decline in area of occupancy, extent of occurrence and/or quality of habitat
☐ d) actual or potential levels of exploitation
☐ e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites

Causes reversible Causes understood Causes ceased

Future (over 10 years or 3 generations, whichever is the longer)

% change in future

Future population reduction basis

☐ b) an index of abundance appropriate for the taxon
☐ c) a decline in area of occupancy, extent of occurrence and/or quality of habitat
☐ d) actual or potential levels of exploitation
☐ e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites

Past and future

% change over any 10 year or 3 generation period, whichever is longer. Must include both past and future. Future can't go beyond 100 years

% change past/future

Both population reduction basis

☐ a) direct observation
☐ b) an index of abundance appropriate for the taxon
☐ c) a decline in area of occupancy, extent of occurrence and/or quality of habitat
☐ d) actual or potential levels of exploitation
☐ e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites

Causes reversible Causes understood Causes ceased

Screenshot of the CAM showing the Reduction tab

Field(s)	Notes
Past (over 10 years or 3 generations, whichever is the longer)	Enter a figure into the % change in past box and select all those that apply from the list a-e. Then select either yes, no or unknown using the drop-down lists for each of the three boxes relating to causes.
Future (over 10 years or 3 generations, whichever is the longer)	Enter a figure into the % change in future box and select all those that apply from the list b-e.
Past and future	Enter a figure into the % change past/future box and select all those that apply from the list a-e. Then select either yes, no or unknown using the drop-down lists for each of the three boxes relating to causes.

Assess

Editing file r:\ukotbrahms\brahms_ukots_multiuser_database\myrdefiles\taxon\redlisting\caribbean_spermacoce_sara.dbf

CONSERVATION ASSESSMENT

Rubiaceae

Spermacoce capillaris (Correll) Howard

Name Botanical Recs Geo Pop Ecol Uses Services Threats Conserve Reduction Assess Biblio Credits Report/Export Taxa Stats Locate Memos Links

Justification

Spermacoce capillaris is an endemic plant from the Turks and Caicos Island which occurs in only two islands. It has a very restricted Area of Occupancy (AOO). Only occurs in two locations. There is continued decline of quality of habitat and number of individuals. On the island of East Caicos, this species is mostly threatened by feral livestock which can feed on it, impacting the number of mature individuals. On South Caicos, this species grows next to developed areas and its suitable habitat is

Assessment date 19/02/2013

Red list category Endangered EN

System IUCN Global 3.1

Criteria A: ☐ A1a ☐ A1b ☐ A1c ☐ A1d ☐ A1e
☐ A2a ☐ A2b ☐ A2c ☐ A2d ☐ A2e
☐ A3a ☐ A3b ☐ A3c ☐ A3d ☐ A3e
☐ A4a ☐ A4b ☐ A4c ☐ A4d ☐ A4e

Criteria B: ☐ B1a
☐ B1b(i) ☐ B1b(ii) ☐ B1b(iii) ☐ B1b(iv) ☐ B1b(v)
☐ B1c(i) ☐ B1c(ii) ☐ B1c(iii) ☐ B1c(iv)
☒ B2a ☐ B2b(i) ☐ B2b(ii) ☒ B2b(iii) ☐ B2b(iv) ☐ B2b(v)
☐ B2c(i) ☐ B2c(ii) ☐ B2c(iii) ☒ B2c(iv)

Criteria C: ☐ C1
☐ C2a(i) ☐ C2a(ii)
☐ C2b

Criteria D: ☐ D
☐ D1
☐ D2

Criteria E: ☐ E

B2a, B2b(iii), B2c(iv)

Spermacoce capillaris is an endemic plant from the Turks and Caicos Island which occurs in only two islands. It has a very restricted Area of Occupancy (AOO). Only occurs in two locations. There is continued decline of quality of habitat and number of individuals. On the island of East Caicos, this species is mostly threatened by feral livestock which can feed on it, impacting the number of mature individuals. On South Caicos, this species grows next to developed areas and its suitable habitat is being modified. Therefore, this species is assessed as Endangered (EN). Urgent in situ and ex situ conservation activities are needed in order to preserve the future of this species.

Add html markup to selected memo text

B **I** **U**

☒ Form always on top **Exit**

Screenshot of the CAM showing the Assess (assessment rational) tab

Field(s)	Notes
Justification (Assessment Rationale)	Provide a justification for the assessment status of the species. This should not be done by just quoting the Red List Criteria thresholds that are met, but should include a summary of the key issues determining why this species is being classified in a particular category. In this box, also state the Assessment status which is being allocated to the species (e.g. 'this species has been assessed as Critically Endangered').
Extinction probability in the wild	To be filled if Criterion E is going to be used. Quantitative analysis have to be done to estimate the extinction probability of a taxon based on a known life history, habitat requirements, threats and any specific management options. Please check IUCN Red List Categories and Criteria documentation .
Continuing decline % in mature individuals	To be filled if Criterion E is going to be used. Quantitative analysis have to be done to estimate the extinction probability of a taxon based on a known life history, habitat requirements, threats and any specific management options. Please check IUCN Red List Categories and Criteria documentation .
Assessment Date	The Assessment Date will fill in automatically the first time the CAM is opened; however, this date can be altered manually to reflect the date when the assessment is submitted.
Red list category	Select the Red List category of the species being assessed as determined by the Red List Criteria used to evaluate the species.

Credits

Editing file: r:\ukotbrahms\brahms_ukots_multiuser_database\myrdefiles\taxon\redlisting\caribbean_spermacoce_sara.dbf

CONSERVATION ASSESSMENT

Rubiaceae

Spermacoce capillaris (Correll) Howard

[Name](#)
[Botanical Recs](#)
[Geo](#)
[Pop](#)
[Ecol](#)
[Uses](#)
[Services](#)
[Threats](#)
[Conserve](#)
[Reduction](#)
[Assess](#)
[Biblio](#)
[Credits](#)
[Report/Export](#)

Credits

Initials	Firstname	Surname	Role	Email
Barrios, S			Assessor	
Manco, BN			Assessor	

Screenshot of the CAM showing the Credits tab

Field(s)	Notes
Credits	To enter the names of all those involved in the assessment select the <i>plus</i> button, search by last name and choose <i>select</i> for the appropriate collaborator. Also select their role from the drop-down list in the “Roles” column. The roles are described as follows: Assessors (those helping to make decision on status), Contributors (those helping with information about the species), and Facilitators (those who run workshops if assessment is completed as a group).

Report/Export (Data Transfer)

Editing file c:\brahmsdata-conifers\savedfiles\taxextract_30-12-2013_at_17-38-14.dbf

CONSERVATION ASSESSMENT

Podocarpaceae

Dacrycarpus compactus (Wasscher) de Laub.

Name	Bot Recs	Geo	Pop	Ecol	Use	Service	Threat	Conserve	Reduction	Assess	Biblio	Credit	Report	Transfers
------	----------	-----	-----	------	-----	---------	--------	----------	-----------	--------	--------	--------	--------	-----------

Reporting

Prepare a draft species conservation assessment report for the current or for all records in the RDE file. The report is pre-formatted into the RDE file memo field CAMREPORT. The final report is created using the BRAHMS Text reporter which will include the field RDE.CAMREPORT.

☒ Report on tagged taxa only
☐ Report on all taxa in this RDE file

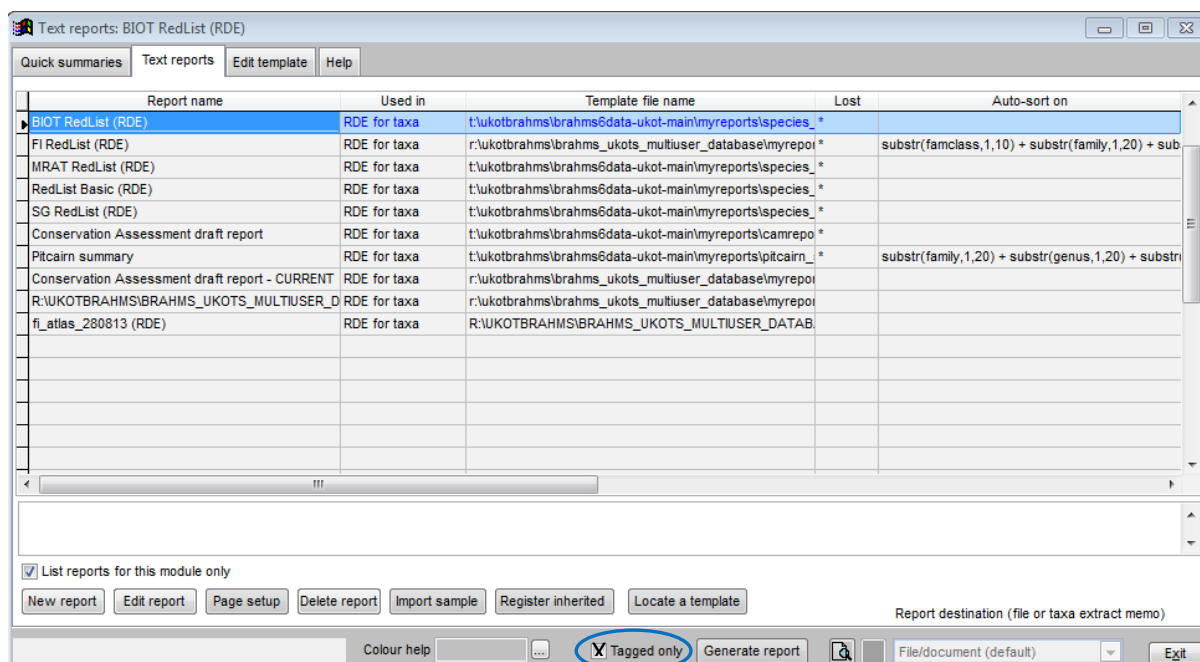
☒ Suppress report headings when data are missing

Screenshot of the CAM showing the Report tab

This tab provides several options to create red list reports from the current RDE file.

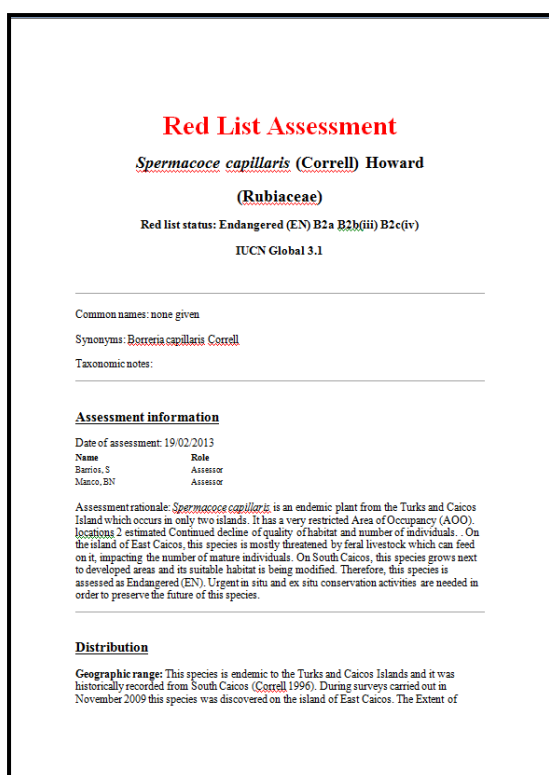
How to create a Visual Report (for a single species)

- Exit the CAM and tag the species for which you want to create a visual report. Make sure that no other species names are tagged.
- Re-open the CAM and click on the **Report** tab.
- Select *Report on tagged taxa only*.
- Leave the '*Suppress heading when there is no data*' box unselected. (This action will allow for full content checks when viewing the Visual Report.)
- Select *Process*.



Screenshot of the CAM showing the Text Reports options

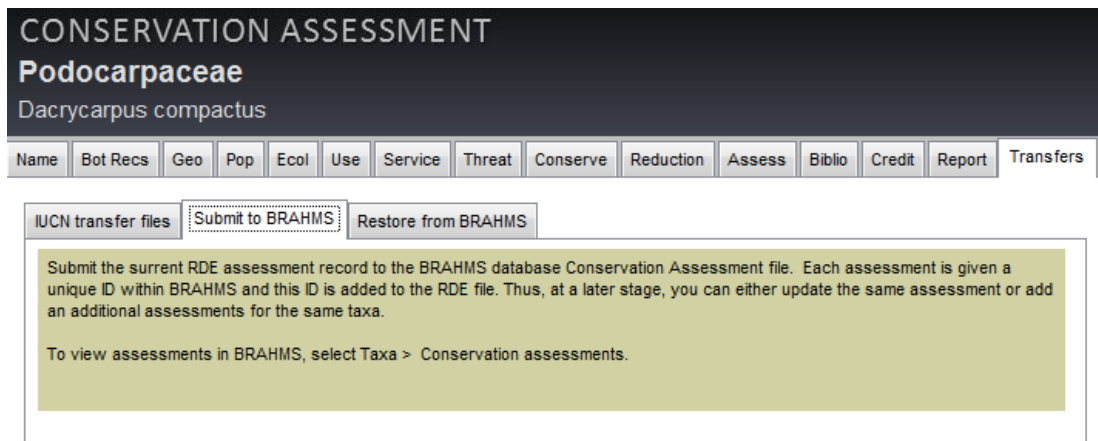
- A new screen will be shown within the CAM. Choose “Conservation Assessment draft report” from the list of Report names.
- Make sure ‘Tagged only’ is selected at bottom border of CAM.
- Select **Generate report**. The report will open as an HTML word file.
- Select the button with the Microsoft Word symbol (*Open in Word*) to open the file as a Word document.



Screenshot of a draft report. These reports are useful for checking data.

Saving your assessment to the BRAHMS database

Assessments can be saved to BRAHMS using the option **Transfers > Submit to BRAHMS**. This option saves the entire assessment to a data file in BRAHMS opened using **Taxa > Conservation assessments**. When you save an assessment, a record is added to this database file with a submit date and an assessment ID.



CONSERVATION ASSESSMENT

Podocarpaceae

Dacrycarpus compactus

Name Bot Recs Geo Pop Ecol Use Service Threat Conserve Reduction Assess Biblio Credit Report Transfers

IUCN transfer files Submit to BRAHMS Restore from BRAHMS

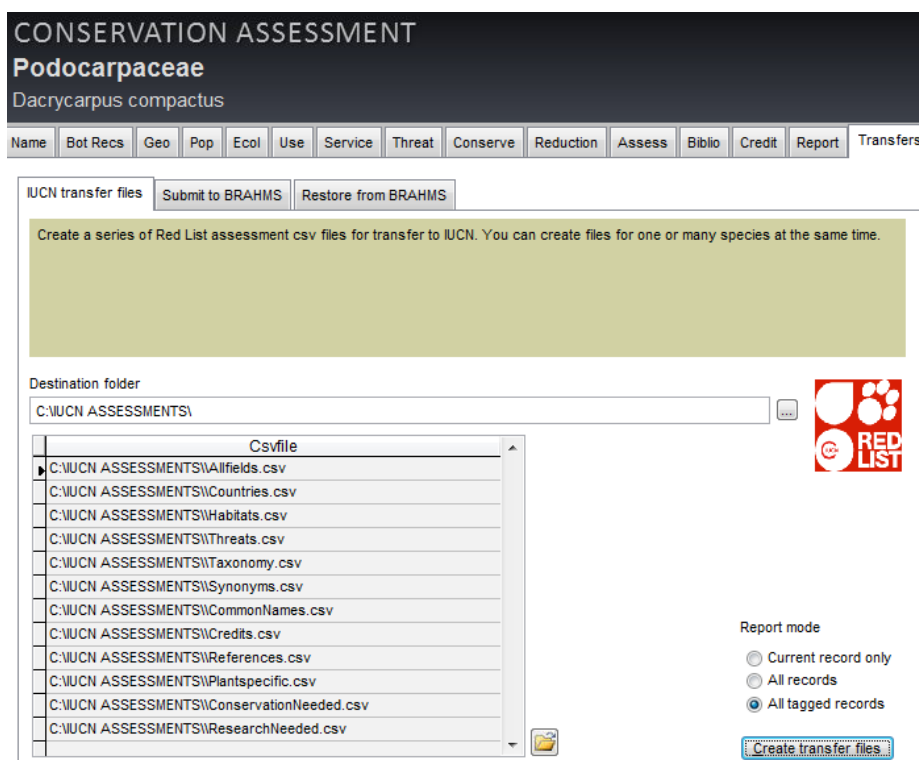
Submit the current RDE assessment record to the BRAHMS database Conservation Assessment file. Each assessment is given a unique ID within BRAHMS and this ID is added to the RDE file. Thus, at a later stage, you can either update the same assessment or add an additional assessments for the same taxa.

To view assessments in BRAHMS, select Taxa > Conservation assessments.

You can restore the assessment using option **Transfers > Restore from BRAHMS**. This option adds a new record to the RDE file for the same species, duplicating the saved assessment. You can now update this assessment based on new data. The earlier assessment is not overwritten.

Submission of assessments to IUCN

The option **Transfers > IUCN transfer files** creates csv files in a format suitable to upload to the IUCN website. **At the time of writing, this option is in development.**



CONSERVATION ASSESSMENT

Podocarpaceae

Dacrycarpus compactus

Name Bot Recs Geo Pop Ecol Use Service Threat Conserve Reduction Assess Biblio Credit Report Transfers

IUCN transfer files Submit to BRAHMS Restore from BRAHMS

Create a series of Red List assessment csv files for transfer to IUCN. You can create files for one or many species at the same time.

Destination folder

C:\IUCN ASSESSMENTS\

Csvfile

- C:\IUCN ASSESSMENTS\Allfields.csv
- C:\IUCN ASSESSMENTS\Countries.csv
- C:\IUCN ASSESSMENTS\Habitats.csv
- C:\IUCN ASSESSMENTS\Threats.csv
- C:\IUCN ASSESSMENTS\Taxonomy.csv
- C:\IUCN ASSESSMENTS\Synonyms.csv
- C:\IUCN ASSESSMENTS\CommonNames.csv
- C:\IUCN ASSESSMENTS\Credits.csv
- C:\IUCN ASSESSMENTS\References.csv
- C:\IUCN ASSESSMENTS\Plantspecific.csv
- C:\IUCN ASSESSMENTS\ConservationNeeded.csv
- C:\IUCN ASSESSMENTS\ResearchNeeded.csv

Report mode

☐ Current record only

☐ All records

☒ All tagged records

Create transfer files

References

Bachman, S.; Brummit, N. Guidelines for Databasing

, Georeferencing and Carrying out Conservation Assessments. SRLI Digitisation Guidelines. 2008.

Botanic Gardens Conservation International (BGCI) - <http://www.bgci.org/> (and the Plant Search database: http://www.bgci.org/plant_search.php)

Catalogue of Seed Plants of the West Indies- <http://botany.si.edu/antilles/WestIndies/query.cfm>

Global Biodiversity Information Facility- <http://data.gbif.org/welcome.htm>

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

- <http://www.cites.org/index.php>

(and the CITES species database: <http://www.cites.org/eng/resources/species.html>)

Crop Wild Relatives and Climate Change - <http://www.cwrdiversity.org/>

GeoCAT - <http://geocat.kew.org/>

IUCN - <http://www.iucnredlist.org/>

The Plant List - <http://www.theplantlist.org/>

Tropicos - <http://www.tropicos.org/>

World Check List of Selected Plant Families -

http://apps.kew.org/wcsp/prepareChecklist.do;jsessionid=1219406C1DB1C8E9D0D9A11F8F32EE09?checklist=selected_families%40%40296221020121406930