

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Chileranthemum lottiae Daniel

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

Scrophulariales

2b. Family

Acanthaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Jalisco, Colima, Michoacan, Guerrero

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment

(using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the **Red List Criteria** met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence is > 20 000km², but less than 100 000 km² in fragmented tropical dry forest of western Mexico.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

2/4/2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Jalisco, Colima, Michoacan, Guerrero

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

3.5. Subtropical/Tropical Dry Scrubland

e. Threats (the main threats to the species, and if known, the severity and extent)

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

Known from the area of Chamela-Cuixmala Biosphere Reserve in Jalisco, Mexico

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Lott, E.J. (in prep) Listado Anotado De Las Plantas Vasculares De Chamela-Cuixmala

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Phaulothamnus spinescens A. Gray

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

Caryophyllales

2b. Family

Achatocarpaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Baja California, Nayarit, Sonora

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment

(using the revised 2001 IUCN system), tick (3) one of the following:

☐ Extinct (EX)

3b. Fill in the **Red List Criteria** met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

<input type="checkbox"/>	Extinct in the Wild (EW)	
<input type="checkbox"/>	Critically Endangered (CR)	
<input type="checkbox"/>	Endangered (EN)	
<input type="checkbox"/>	Vulnerable (VU)	
<input checked="" type="checkbox"/>	Near Threatened (NT)	
<input type="checkbox"/>	Least Concern (LC)	
<input type="checkbox"/>	Data Deficient (DD)	
<input type="checkbox"/>	Not Evaluated (NE)	

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence is > 20 000km², poorly collected but populations appear highly fragmented.
Seasonally dry tropical forest, the principal habitat of the species is in Western Mexico is highly converted and fragmented.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

<input type="checkbox"/> Genuine change in status of species	<input type="checkbox"/> New or better information available
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- ☐ Incorrect information used previously ☐ Taxonomic change affecting the species
- ☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

2/4/2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Shrub of seasonally dry tropical forest
1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Threat Auth:
1.1. Agriculture
1.1.1. Crops
1.1.1.1. Shifting agriculture
1.1.1.2. Small-holder farming

1.3.3 Wood
1.3.3.1 Small scale subsistence

1.1.4 Livestock
1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Fishbein, M., Wilson, R.K., Yetman, D.A., Jenkins, P., & Martin, P.S. (1998). Annotated list of Río Mayo vascular plants. In *Gentry's Río Mayo Plants: The tropical deciduous forest and environs of northwest Mexico*. eds P.S. Martin, D.A. Yetman, M. Fishbien, P. Jenkins, T.R. van Devender & R.K. Wilson, pp. 167-522. University of Arizona Press, Tuscon.

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Lagrezia monosperma (Rose) Standl.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

CARYOPHYLLALES

2b. Family

AMARANTHACEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Pacific states from Oaxaca through Guerrero, Colima, Michoacan to Jalisco

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence is > 20 000km², western Mexican dry forests have suffered conversion and fragmentation.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
- ☐ Incorrect information used previously ☐ Taxonomic change affecting the species
- ☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

2/4/2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Pacific states from Oaxaca through Guerrero, Colima, Michoacan to Jalisco. Lowland seasonally dry tropical forest

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

Known from Chamela-Cuixmala Biosphere Reserve

g. Utilization

None known

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Lott, E.J. (in prep) *Listado Anotado De Las Plantas Vasculares De Chamela-Cuixmala*.

Gordon, JE; Hawthorne, WD; Reyes-García, R; Sandoval, G; Barrance, AJ (2004) Assessing Landscapes: A case study of tree and shrub diversity in the seasonally dry tropical forests of Oaxaca, Mexico and southern Honduras. *Biological Conservation* 117, 449-442

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Bursera denticulata McVaugh & Rzed.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

Sapindales

Burseraceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Jalisco, Colima, Michoacan

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence inferred to be > 20 000 km² but limited to the seasonally dry tropical forest in a restricted area of SW coast of Mexico. This forest type is highly fragmented. Adaptability of species to disturbance is not known.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
- ☐ Incorrect information used previously ☐ Taxonomic change affecting the species
- ☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

3 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Known from the Chamela-Cuixmala Reserve, Jalisco, Mexico

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

f. Conservation Actions (including presence in protected areas and national legislation)

Known from the Chamela-Cuixmala Biosphere Reserve in Jalisco, Mexico

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Lott, E.J. (in prep) *Listado Anotado De Las Plantas Vasculares De Chamela-Cuixmala*

McVaugh, R & Rzedowski, J. (1965) Synopsis of the Genus *Bursera* L. in western Mexico, with notes on the material of *Bursera* collected by Sessé & Mocino *Kew Bulletin* 18 (2) 317-384

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Bursera instabilis McVaugh & Rzed.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

Sapindales

Burseraceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Oaxaca, Guerrero, Michoacan, Colima, Jalisco

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence is > 20 000km² but limited to five states on the Pacific lowlands of SW Mexico in which seasonally dry tropical forest is fragmented and converted.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

3 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Pacific seasonally dry lowland tropical forest of Mexico: Oaxaca, Guerrero, Michoacan, Colima, Jalisco,

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonally dry tropical forest: little known of ecology in general and ability to regenerated in disturbed dry forests area in particular.

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

Known from the Chamela-Cuixmala Biosphere Reserve in Jalisco, Mexico

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

McVaugh, R & Rzedowski, J. (1965) Synopsis of the Genus *Bursera* L. in western Mexico, with notes on the material of *Bursera* collected by Sessé & Mocino *Kew Bulletin* 18 (2) 317-384

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Lott, E.J. (in prep) *Listado Anotado De Las Plantas Vasculares De Chamela-Cuixmala*

Gordon, JE; Hawthorne, WD; Reyes-García, R; Sandoval, G; Barrance, AJ (2004) Assessing Landscapes: A case study of tree and shrub diversity in the seasonally dry tropical forests of Oaxaca, Mexico and southern Honduras. *Biological Conservation* 117, 449-442

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Bursera laxiflora S Watson

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

Torote Prieto (Spanish)

2a. Order

Sapindales

2b. Family

Burseraceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Baja California, Sonora, Sinaloa

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence is $> 20\,000\text{km}^2$, and therefore does not meet criteria for higher status, but restricted to three Mexican states, where its dry forest habitat is fragmented and threatened.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

3 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Baja California, Sonora, Sinaloa

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonally dry tropical forest, including scrub of xeric hillsides
Habitats Authority:

- 1.5 Subtropical/Tropical Dry Forest
- 3.5. Subtropical/Tropical Dry Scrubland

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

- 1.1. Agriculture
 - 1.1.1. Crops
 - 1.1.1.1. Shifting agriculture
 - 1.1.1.2. Small-holder farming
- 1.3.3 Wood
 - 1.3.3.1 Small scale subsistence
- 1.1.4 Livestock
 - 1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

Fishbein, M., Wilson, R.K., Yetman, D.A., Jenkins, P., & Martin, P.S. (1998). Annotated list of Río Mayo vascular plants. In *Gentry's Río Mayo Plants: The tropical deciduous forest and environs of northwest Mexico*. eds P.S. Martin, D.A. Yetman, M. Fishbein, P. Jenkins, T.R. van Devender & R.K. Wilson, pp. 167-522. University of Arizona Press, Tucson.

McVaugh, R & Rzedowski, J. (1965) Synopsis of the Genus *Bursera* L. in western Mexico, with notes on the material of *Bursera* collected by Sessé & Mocino *Kew Bulletin* 18 (2) 317-384

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Bursera stenophylla Sprague & L. Riley

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

Sapindales

Burseraceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Sinaloa, Sonora, Chihuahua

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence is $> 20\,000\text{km}^2$, and therefore does not met criteria for higher status, but restricted to three Mexican states, where its dry forest habitat is fragmented and threatened.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
- ☐ Incorrect information used previously ☐ Taxonomic change affecting the species
- ☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

3 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Sinaloa, Sonora, Chihuahua

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

3.5. Subtropical/Tropical Dry Scrubland

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

g. Utilization

Wood used locally for utensils

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Fishbein, M., Wilson, R.K., Yetman, D.A., Jenkins, P., & Martin, P.S. (1998). Annotated list of Río Mayo vascular plants. In *Gentry's Río Mayo Plants: The tropical deciduous forest and environs of northwest Mexico*. eds P.S. Martin, D.A. Yetman, M. Fishbien, P. Jenkins, T.R. van Devender & R.K. Wilson, pp. 167-522. University of Arizona Press, Tuscon.

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Forchhammeria lanceolata Standl.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

Capparidales

Capparidaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Jalisco, Guerrero, Oaxaca

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence is $> 20\,000\text{km}^2$, and therefore does not met criteria for higher status, but restricted to three Mexican states, where its dry forest habitat is fragmented and threatened.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

4 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Jalisco, Guerrero, Oaxaca

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonally dry tropical forest: also found in old field successions.

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Gordon, JE; Hawthorne, WD; Reyes-García, R; Sandoval, G; Barrance, AJ (2004) Assessing Landscapes: A case study of tree and shrub diversity in the seasonally dry tropical forests of Oaxaca, Mexico and southern Honduras. *Biological Conservation* 117, 449-442

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Maytenus belizensis Standl.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

Celastrales

Celastraceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Campeche, Quintana Roo. Yucatán
Belize

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence is $> 20\,000\text{km}^2$, and therefore does not meet criteria for higher status, but restricted to three Mexican states and Belize, where its dry forest habitat is fragmented and threatened.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

5 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Campeche, Quintana Roo. Yucatán
Belize

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

Known from the Calakmul Biosphere Reserve, Campeche Mexico

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

Hawthorne, W H & Hughes C E (unpublished) *Draft annotated checklist for seasonal forest of Quintana Roo, Mexico*, DFID

Martínez, E., Sousa, M., & Ramos Álvarez, C. H. (2001) *Listados Florísticos de México: Región de Calakmul, Campeche*. UNAM, Mexico City.

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Diospyros anisandra S.F. Blake

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

Theales

2b. Family

Ebenaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Campeche, Quintana Roo. Yucatán
Guatemala: Peten

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence is $> 20\,000\text{km}^2$, and therefore does not meet criteria for higher status, but restricted to the three Mexican states of the Yucatán peninsula and Guatemala's Peten, probably in seasonal and semi-seasonal forest.

Forest of this area are under threaten from the effects of colonization.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

5 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Campeche, Quintana Roo. Yucatán
Guatemala: Peten

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

f. Conservation Actions (including presence in protected areas and national legislation)

Known from the Calakmul Biosphere Reserve, Mexico

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Hawthorne, W H & Hughes C E (unpublished) *Draft annotated checklist for seasonal forest of Quintana Roo, Mexico*, DFID

Martínez, E., Sousa, M., & Ramos Álvarez, C. H. (2001) *Listados Florísticos de México: Región de Calakmul, Campeche*. UNAM, Mexico City.

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Diospyros cuneata Standl.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

Theales

Ebenaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Campeche, Quintana Roo. Yucatán

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence is $> 20\,000\text{km}^2$, and therefore does not meet criteria for higher status, but restricted to the three Mexican states of the Yucatán peninsula.

Forests of this area are under threat from the effects of colonization, it having been seen as 'frontier' ripe for development by its respective governments.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

5 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Campeche, Quintana Roo. Yucatán

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Habitats Authority:

- 1.5 Subtropical/Tropical Dry Forest
- 3.5. Subtropical/Tropical Dry Scrubland

e. Threats (the main threats to the species, and if known, the severity and extent)

Threat Auth:

- 1.1. Agriculture
 - 1.1.1. Crops
 - 1.1.1.1. Shifting agriculture
 - 1.1.1.2. Small-holder farming
- 1.3.3 Wood
 - 1.3.3.1 Small scale subsistence

f. Conservation Actions (including presence in protected areas and national legislation)

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Hawthorne, W H & Hughes C E (unpublished) *Draft annotated checklist for seasonal forest of Quintana Roo, Mexico*, DFID

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Forchhammeria watsonii Rose

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

Capparidales

2b. Family

Capparidaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Sonora, Sinaloa, Baja California Sur

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence is > 20 000 km² but this small tree is limited to NW Mexican thorn scrub and dry forest in areas where clearance for agriculture has been extensive.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

3 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Sonora, Sinaloa, Baja California Sur

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

Population likely to be highly fragmented given nature of Seasonally dry tropical forest within its range

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

1.5 Subtropical/Tropical Dry Forest
3.5. Subtropical/Tropical Dry Scrubland

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture
1.1.1. Crops
1.1.1.1. Shifting agriculture
1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

Presence in protected areas not established

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Fishbein, M., Wilson, R.K., Yetman, D.A., Jenkins, P., & Martin, P.S. (1998). Annotated list of Río Mayo vascular plants. In *Gentry's Río Mayo Plants: The tropical deciduous forest and environs of northwest Mexico*. eds P.S. Martin, D.A. Yetman, M. Fishbien, P. Jenkins, T.R. van Devender & R.K. Wilson, pp. 167-522. University of Arizona Press, Tuscon.

Turner, R.M.; Bowers, J.E. & Burgess, T. L. (1995) *Sonoran Desert Plants: an ecological atlas*. University of Arizona Press, Tucson.

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Erythroxylum bequaertii Standl.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

LINALES

Erythroxylaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Campeche, Quintana Roo, Yucatán
Guatemala (Petén)

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence is $> 20\,000\text{km}^2$, and therefore does not meet criteria for higher status, but restricted to the three Mexican states of the Yucatán peninsula, with a specimen in MO from 1959 from the Guatemalan Petén

Forests of this area are under threat from the effects of colonization, it having been seen as 'frontier' ripe for development by its respective governments.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

6 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Campeche, Quintana Roo, Yucatán
Guatemala (Petén)

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Semi seasonal tropical forest and scrub

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

Found in disturbed sites, which reduces conservation concern for this species.

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

f. Conservation Actions (including presence in protected areas and national legislation)

Reported from the region of the Calakmul Biosphere Reserve

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Martínez, E., Sousa, M., & Ramos Álvarez, C. H. (2001) *Listados Florísticos de México: Región de Calakmul, Campeche*. UNAM, Mexico City.

Hawthorne, W H & Hughes C E (unpublished) *Draft annotated checklist for seasonal forest of Quintana Roo, Mexico*, DFID

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Acalypha multiflora (Standl.) Radcl.-Sm.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

Euphorbiales

Euphorbiaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Sonora, Nayarit, Jalisco, Morelos

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence inferred to be > 20 000 km². Limited to the seasonal and semi-seasonal tropical forest of Mexico (Sonora, Nayarit, Jalisco, Morelos).

This forest type is highly fragmented.

Adaptability of this small tree to disturbance is not known.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

4 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Sonora, Jalisco, Nayarit, Morelos.

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonal and semi-seasonal tropical forest

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonal tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

Present in the Chamela-Cuixmala Biosphere Reserve

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

Govaerts, R.; Frodin, D.G.; & Radcliffe-Smith, A. (2000) World Checklist and Bibliography of Euphorbiaceae (and Pandanaceae). Royal Botanic Gardens, Kew

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Lott, E.J. (in prep) *Listado Anotado De Las Plantas Vasculares De Chamela-Cuixmala*

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Astrocasia peltata Standl.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

Euphorbiales

2b. Family

Euphorbiaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Sinaloa, Nayarit, Jalisco

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence inferred to be > 20 000 km². Limited to the seasonally dry tropical forest in a limited area on west coast of Mexico.

This forest type is highly fragmented.

Adaptability of species to disturbance is not known.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
- ☐ Incorrect information used previously ☐ Taxonomic change affecting the species
- ☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

4 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Sinaloa, Nayarit, Jalisco

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonally dry tropical forest

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

Present in the Chamela-Cuixmala Biosphere Reserve of Jalisco, Mexico.

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

Govaerts, R.; Frodin, D.G.; & Radcliffe-Smith, A. (2000) World Checklist and Bibliography of Euphorbiaceae (and Pandanaceae). Royal Botanic Gardens, Kew

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Lott, E.J. (in prep) *Listado Anotado De Las Plantas Vasculares De Chamela-Cuixmala*

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Bernardia nicaraguensis Standl. & L.O. Williams

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

Euphorbiales

Euphorbiaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Honduras (Comayagua)
Nicaragua (Pacific lowlands and foothills)
Costa Rica (Guanacaste)

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence inferred to be > 20 000 km ² . Limited to the seasonal dry tropical forest of Central America: Honduras, Nicaragua and Costa Rica.
This forest type is highly fragmented.
Adaptability of this small tree to disturbance is not known.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
- ☐ Incorrect information used previously ☐ Taxonomic change affecting the species
- ☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

4 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Honduras (Comayagua)
Nicaragua (Pacific lowlands and foothills)
Costa Rica (Guanacaste)

--

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

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d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonally dry tropical forest

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonal tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

Collected in Guanacaste Conservation Area, Costa Rica and Parque Nacional

Volcán Masaya, Nicaragua (the latter not since 1978)

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Janzen, D.H. & Liesner, R. (1980) Annotated checklist of plants of lowland Guanacaste Province, Costa Rica, exclusive of grasses and non-vascular cryptograms. *Brenesia*, 18, 15-90.

Steven, W.D.; Ulloa Ulloa, C.; Pool, A. & Montiel, O.M. (2001) Flora de Nicaragua, Vol 1. Missouri Botanical Gardens, St Louis.

Govaerts, R.; Frodin, D.G.; & Radcliffe-Smith, A. (2000) World Checklist and Bibliography of Euphorbiaceae (and Pandanaceae). Royal Botanic Gardens, Kew

Seasonal/Dry forest conversion and fragmentation:

Janzen, D.H., (1988) *Tropical dry forests: the most endangered major tropical ecosystems*, in Biodiversity, E.O. Wilson, Editor., National Academy Press: Washington DC, USA. p. 130-137.

Murphy, P.G. & A.E. Lugo, (1995) *Dry Forests of Central America and the Caribbean*, in Seasonally Dry Tropical Forests, S.H. Bullock, H.A. Mooney, and E. Medina, Editors. Cambridge University Press: Cambridge. p. 9-34.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Croton septemnervius McVaugh

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

Euphorbiales

Euphorbiaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Jalisco, Guerrero, Oaxaca

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

<p>Extent of occurrence inferred to be > 20 000 km².</p> <p>Species of the seasonal dry tropical forest of SW Mexico</p> <p>This forest type is highly fragmented, although species has been observed to regenerate in disturbed areas in Oaxacan dry tropical forest</p>

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

5 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Jalisco, Guerrero, Oaxaca

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonally dry tropical forest

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonal tropical forest.

Fragmentation and conversion of Mexican tropical dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

Not determined whether found within protected areas

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Salas-Morales, S.H., Saynes-Vázquez, A., & Schibli, L. (2003) Flora de la costa de Oaxaca: lista florística de la región de Zimatán. *Boletín de la Sociedad Botánica Mexicana*, 72, 21-58.

Govaerts, R.; Frodin, D.G.; & Radcliffe-Smith, A. (2000) World Checklist and Bibliography of Euphorbiaceae (and Pandanaceae). Royal Botanic Gardens, Kew

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Jatropha gaumeri Greenm.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

Euphorbiales

Euphorbiaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Yucatán, Campeche, Quintana Roo
Guatemala (Peten)
Belize

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence inferred to be > 20 000 km². However, limited to the Greater Yucatán where its native seasonal forests are under severe pressure from development

Adaptability of species to disturbance is not known.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

6 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Yucatán, Campeche, Quintana Roo
Guatemala (Peten)
Belize

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonally dry tropical forest

Fragmentation and conversion of Mexican tropical dry forest.

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Fragmentation and conversion of Mexican tropical dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

Known from the region of the Calakmul Biosphere Reserve, Campeche

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Hawthorne, W H & Hughes C E (unpublished) *Draft annotated checklist for seasonal forest of Quintana Roo, Mexico, DFID*

Govaerts, R.; Frodin, D.G.; & Radcliffe-Smith, A. (2000) World Checklist and Bibliography of Euphorbiaceae (and Pandanaceae). Royal Botanic Gardens, Kew

Martínez, E., Sousa, M., & Ramos Álvarez, C. H. (2001) *Listados Florísticos de México: Región de Calakmul, Campeche*. UNAM, Mexico City.

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Sebastiania cornuta McVaugh

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

Euphorbiales

Euphorbiaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Chihuahua, Sonora, Sinaloa, Durango, Nayarit

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Limited distribution, but extent of occurrence inferred to be > 20 000 km². However, its native seasonal dry forests in this regional are under severe pressure from development, hence NT assessment.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

6 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Chihuahua, Sonora, Sinaloa, Nayarit, Durango.

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonally dry tropical forest. Regenerates in disturbed areas.

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

Not known from protected areas.

g. Utilization

Bark a source of fish poison.

11. Literature References (cited in full) used for the assessment and documentation

Fishbein, M., Wilson, R.K., Yetman, D.A., Jenkins, P., & Martin, P.S. (1998). Annotated list of Río Mayo vascular plants. In *Gentry's Río Mayo Plants: The tropical deciduous forest and environs of northwest Mexico*. eds P.S. Martin, D.A. Yetman, M. Fishbien, P. Jenkins, T.R. van Devender & R.K. Wilson, pp. 167-522. University of Arizona Press, Tuscon.

McVaugh, R. (1995) Euphorbiacearum sertum Novo-Galicianarum Revisarum *Contr. Univ. Michigan. Herb.* 20: 173-215

Govaerts, R.; Frodin, D.G.; & Radcliffe-Smith, A. (2000) World Checklist and Bibliography of Euphorbiaceae (and Pandanaceae). Royal Botanic Gardens, Kew

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Sebastiania lottiae McVaugh

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

Euphorbiales

Euphorbiaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Jalisco, Michoacán, Guerrero, Oaxaca, Morelos

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Limited distribution, but extent of occurrence inferred to be > 20 000 km², although true extent of this relatively newly described species not clear.

It is represented by collection from single trees in Oaxaca, Morelos and Jalisco. Its native seasonal dry forests in this regional are under severe pressure from development, and may be a conservation concern, hence DD assessment.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
- ☐ Incorrect information used previously ☐ Taxonomic change affecting the species
- ☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

6 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Jalisco, Michoacán, Guerrero, Oaxaca, Morelos

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonally dry tropical forest. Regenerates in disturbed areas.

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

f. Conservation Actions (including presence in protected areas and national legislation)

Known from the Chamela-Cuixmala Biosphere Reserve, Jalisco, Mexico

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

Lott, E.J. (in prep) Listado Anotado De Las Plantas Vasculares De Chamela-Cuixmala

McVaugh, R. (1995) Euphorbiacearum sertum Novo-Galicianarum Revisarum *Contr. Univ. Michigan. Herb.* 20: 173-215

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Sebastiania adenophora Pax & K. Hoffm.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

Euphorbiales

2b. Family

Euphorbiaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Quintana Roo, Yucatán, Campeche,
Belize
Guatemala (Petén)

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Distribution limited to the greater Yucatán, but extent of occurrence inferred to be > 20 000 km²,

However, its native seasonal dry forests in this regional are under severe pressure from development, and may be a conservation concern, hence NT assessment.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

6 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Quintana Roo, Yucatán, Campeche,
Belize
Guatemala (Petén)

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonally dry tropical forest. Regenerates in disturbed areas.

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

Found in the region of the Calakmul Biosphere Reserve, Campeche, Mexico

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Martínez, E., Sousa, M., & Ramos Álvarez, C. H. (2001) *Listados Florísticos de México: Región de Calakmul, Campeche*. UNAM, Mexico City.

Hawthorne, W H & Hughes C E (unpublished) *Draft annotated checklist for seasonal forest of Quintana Roo, Mexico, DFID*

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Sebastiania confusa Lundell

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

Euphorbiales

Euphorbiaceae

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Quintana Roo, [probably also Yucatán & Campeche],
Belize
Guatemala (Petén)

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Distribution limited to the greater Yucatán, but extent of occurrence inferred to be > 20 000 km²,

However, its native seasonal dry forests in this regional are under severe pressure from development, and may be a conservation concern, hence NT assessment.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
- ☐ Incorrect information used previously ☐ Taxonomic change affecting the species
- ☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

6 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Quintana Roo, Yucatán
Belize
Guatemala (Petén)

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonally dry tropical forest. Regenerates in disturbed areas.

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Govaerts, R.; Frodin, D.G.; & Radcliffe-Smith, A. (2000) World Checklist and Bibliography of Euphorbiaceae (and Pandanaceae). Royal Botanic Gardens, Kew

Hawthorne, W H & Hughes C E (unpublished) *Draft annotated checklist for seasonal forest of Quintana Roo, Mexico, DFID*

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Samyda mexicana Rose

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

VIOLALES

2b. Family

FLACOURTIACEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Jalisco, Colima, Guerrero, Oaxaca, Veracruz

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Distribution limited to SW Mexican seasonally dry tropical forest but extent of occurrence inferred to be > 20 000 km²

This forest type is highly fragmented and threatened.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

6 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico (Jalisco, colima, Guerrero, Oaxaca, Veracruz)

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

Lott, E.J. (in prep) *Listado Anotado De Las Plantas Vasculares De Chamela-Cuixmala*

Sleumer, H. O. (1980) Flacourtiaceae *Flora Neotropica* 22: 1-499

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Samyda yucatanensis Standl.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

VIOLALES

FLACOURTIACEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Campeche, Yucatán, Quintana Roo

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Distribution limited to dry scrub and seasonally dry tropical forest of the northern Yucatán Peninsula. Extent of occurrence inferred to be > 20 000 km², but probably not much more. The preference of this small tree or shrub for secondary forests reduces its conservation concern.

This forest type is highly fragmented and threatened.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

9 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Campeche, Yucatán, Quintana Roo

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonally dry tropical deciduous forest and scrub, perhaps also occasionally semi-deciduous forest. Locally common and found in secondary successions.

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

3.5. Subtropical/Tropical Dry Scrubland

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

Present in the Sian Ka'an Biosphere Reserve (Quintana Roo) and known from the region of the Calakmul Biosphere Reserve

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Martínez, E., Sousa, M., & Ramos Álvarez, C. H. (2001) *Listados Florísticos de México: Región de Calakmul, Campeche*. UNAM, Mexico City.

Hawthorne, W H & Hughes C E (unpublished) *Draft annotated checklist for seasonal forest of Quintana Roo, Mexico, DFID*

Reserva de la Biósfera Sian Ka'an: Información General
<http://maya.ucr.edu/pril/reservas/siankaan/siankaan1.html>

Sleumer, H. O. (1980) Flacourtiaceae *Flora Neotropica* 22: 1-499

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Gyrocarpus mocinoi Espejo

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

Bailador (Spanish)

2a. Order

2b. Family

LAURALES

HERNANDIACEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Guerrero, Oaxaca, Chiapas, Puebla
Guatemala

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Distribution limited to semi-seasonal and seasonally dry tropical forest. Extent of occurrence inferred to be > 20 000 km².

This forest type is highly fragmented and threatened.

This is a relatively newly described species (1991) that is easily confused with *Gyrocarpus jatrophifolius* Domin. Its status may therefore be subject to change.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
- ☐ Incorrect information used previously ☐ Taxonomic change affecting the species
- ☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

9 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Guerrero, Oaxaca, Chiapas, Puebla
Guatemala: El Progreso

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonally dry tropical deciduous forest and scrub, and occasionally semi-deciduous forest. Colonises secondary successions,

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

3.5. Subtropical/Tropical Dry Scrubland

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

Espejo Serna, A (1997) Hernandiaceae in *Flora of Mexico* Vol. 7(2) Consejo Nacional de la Flora de Mexico, A.C.

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Gordon, JE; Hawthorne, WD; Reyes-García, R; Sandoval, G; Barrance, AJ (2004) Assessing Landscapes: A case study of tree and shrub diversity in the seasonally dry tropical forests of Oaxaca, Mexico and southern Honduras. *Biological Conservation* 117, 449-442

Salas-Morales, S.H., Saynes-Vázquez, A., & Schibli, L. (2003) Flora de la costa de Oaxaca: lista florística de la región de Zimatán. *Boletín de la Sociedad Botánica Mexicana*, 72, 21-58.

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Bauhinia erythrocalyx Wunderlin

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

FABALES

2b. Family

LEGUMINOSAE- CAESALPINIOIDEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Quintana Roo, Campeche
Guatemala: Petén
Belize

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Distribution of this uncommon shrub or small tree is limited to semi-seasonal tropical forest in the Greater Yucatán, where rapid development has caused reduction in forest area and quality but extent of occurrence inferred to be > 20 000 km² and known to be locally common in secondary vegetation, therefore NT.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

9 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Quintana Roo, Campeche
 Guatemala: Petén
 Belize

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

Uncommon (Wunderlin 1983)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Semi-seasonal and seasonal dry tropical forest. Colonises secondary successions.

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

f. Conservation Actions (including presence in protected areas and national legislation)

Found in the region of the Calakmul Biosphere Reserve, Campeche, Mexico

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

Wunderlin, R.P. (1983) A Revision of the Arborescent Bauhinias. *Ann. Mis. Bot. Gdn.* 70:95-127

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Martínez, E., Sousa, M., & Ramos Álvarez, C. H. (2001) *Listados Florísticos de México: Región de Calakmul, Campeche*. UNAM, Mexico City.

Hawthorne, W H & Hughes C E (unpublished) *Draft annotated checklist for seasonal forest of Quintana Roo, Mexico, DFID*

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Cassia hintonii Sandwith

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

FABALES

LEGUMINOSAE- CAESALPINIOIDEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico- Jalisco, Colima, Michoacán, State of Mexico.

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Distribution of this small tree is limited to semi-seasonal tropical forest in the Balsas Region of western Mexico, where rapid development has caused reduction in forest area and quality but extent of occurrence inferred to be > 20 000 km², therefore NT.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

9 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico- Jalisco, Colima, Michoacán, State of Mexico.

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Seasonal dry tropical forest.

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

Known from the Chamela-Cuixmala Biosphere Reserve, Jalisco, Mexico

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Lott, E.J. (in prep) Listado Anotado De Las Plantas Vasculares De Chamela-Cuixmala

McVaugh, R. 1987 Leguminosae in *Flora Novo-Galiciana* 5: 1-786 ed Anderson, W. R. University of Michigan Press, Ann Arbor

International Legume Database & Information Service (ILDIS) (2005)
<http://www.ildis.org/>

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Calliandra juzepczukii Standl.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

FABALES

LEGUMINOSAE- MIMOSOIDEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Oaxaca, Chiapas, Veracruz

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Distribution limited to seasonal dry and semi-seasonal tropical forest in southern Mexico, where rapid development has caused reduction in forest area and quality but extent of occurrence inferred to be > 20 000 km², therefore NT.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

10th May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Oaxaca, Chiapas, Veracruz

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Mexican tropical semi-seasonal and seasonally dry forest.

Habitats Authority:

Forest:

1.5. Subtropical/Tropical Dry

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mexican tropical semi-seasonal and seasonally dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Janzen, D.H. & Liesner, R. (1980) Annotated checklist of plants of lowland Guanacaste Province, Costa Rica, exclusive of grasses and non-vascular cryptograms. *Brenesia*, 18, 15-90.

International Legume Database & Information Service (ILDIS) (2005)
<http://www.ildis.org/>

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Ateleia herbert-smithii Pittier

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

FABALES

2b. Family

LEGUMINOSAE- PAPILIONOIDEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Nicaragua, Costa Rica, Colombia

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Distribution limited to seasonal dry and semi-seasonal tropical forest of Nicaragua, Costa Rica and Colombia. Extent of occurrence inferred to be > 20000 km², therefore NT, and dry forest of this region have undergone extreme fragmentation and conversion.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

10th May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Oaxaca, Chiapas, Veracruz

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Mexican tropical semi-seasonal and seasonally dry forest.

Habitats Authority:

Forest:

1.5. Subtropical/Tropical Dry

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mexican tropical semi-seasonal and seasonally dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

Collected from the Guanacaste Conservation Area, Costa Rica

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Janzen, D.H. & Liesner, R. (1980) Annotated checklist of plants of lowland Guanacaste Province, Costa Rica, exclusive of grasses and non-vascular cryptograms. *Brenesia*, 18, 15-90.

International Legume Database & Information Service (ILDIS) (2005)
<http://www.ildis.org/>

Steven, W.D.; Ulloa Ulloa, C.; Pool, A. & Montiel, O.M. (2001) Flora de Nicaragua, Vol 2. Missouri Botanical Gardens, St Louis.

Gillespie, T (unpublished) *Family and scientific names of plants encountered in tropical dry forest of Nicaragua*

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Caesalpinia hughesii G.P. Lewis

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

FABALES

2b. Family

LEGUMINOSAE- CAESALPINIOIDEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Colima, Michoacán, Guerrero, Oaxaca

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence inferred to be > 20 000 km².

Limited to Mexican seasonally dry forest areas of coastal plain of SW Mexico, with most of its collections coming from Oaxaca, where it is locally frequent.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
- ☐ Incorrect information used previously ☐ Taxonomic change affecting the species
- ☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

9 May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico- Colima, Michocán, Guerrero, Oaxaca.

--

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

Locally common in disturbed vegetation.

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Small tree of seasonally dry tropical forest. Regenerates in secondary forest.

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mexican tropical dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

1.1.4 Livestock

1.1.4.2 Small holder

f. Conservation Actions (including presence in protected areas and national legislation)

Not known to be present in any protected area, although known from secondary regeneration around the Parque Nacional Huatulco- possible that species will be found within this National Park.

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Lewis, G.P. (1998) *Caesalpinia* Royal Botanic Gardens, Kew

Gordon, JE; Hawthorne, WD; Reyes-García, R; Sandoval, G; Barrance, AJ (2004) Assessing Landscapes: A case study of tree and shrub diversity in the seasonally dry tropical forests of Oaxaca, Mexico and southern Honduras. *Biological Conservation* 117, 449-442

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Lonchocarpus constrictus Pittier

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

FABALES

LEGUMINOSAE- PAPILIONOIDEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Jalisco, Guerrero, Michoacán, Colima, Oaxaca

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

This tree has an extent of occurrence greater than 20 000 km², and is therefore not in immediate danger of extinction but is restricted to the seasonal dry forests of the western pacific coast of Mexico, an area that has undergone and continues to undergo forest conversion.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

4th June 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Jalisco, Guerrero, Michoacán, Colima, Oaxaca

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Mesoamerican seasonally dry forest.

Habitats Authority:

Forest:

1.5. Subtropical/Tropical Dry

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mexican tropical semi-seasonal and seasonally dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

Found in the Chamela-Cuixmala Biosphere Reserve in Jalisco.

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

McVaugh, R. (1987) *Leguminosae* in Flora Novo-Galiciana vol 5: 1-786; ed Anderson, W. R. University of Michigan Press, Ann Arbor

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

International Legume Database & Information Service (ILDIS) (2005)
<http://www.ildis.org/>

Salas-Morales, S.H., Saynes-Vázquez, A., & Schibli, L. (2003) Flora de la costa de Oaxaca: lista florística de la región de Zimatán. *Boletín de la Sociedad Botánica Mexicana*, 72, 21-58.

Gordon, JE; Hawthorne, WD; Reyes-García, R; Sandoval, G; Barrance, AJ (2004) Assessing Landscapes: A case study of tree and shrub diversity in the seasonally dry tropical forests of Oaxaca, Mexico and southern Honduras. *Biological Conservation* 117, 449-442

Lott, E.J. (in prep) Listado Anotado De Las Plantas Vasculares De Chamela-Cuixmala

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Lonchocarpus hintonii Sandwith

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

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1c. English Common Name (if known)

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1d. Other Common Names (if known and state language)

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2a. Order

2b. Family

FABALES

LEGUMINOSAE- PAPILIONOIDEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Jalisco, Guerrero, Michoacán, Colima, Oaxaca, Chiapas

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

This tree has an extent of occurrence greater than 20 000 km², and is therefore not in immediate danger of extinction but is restricted to the seasonal dry forests of the western and southwestern pacific coast of Mexico, an area that has undergone and continues to undergo forest conversion.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

<input type="checkbox"/> Genuine change in status of species	<input type="checkbox"/> New or better information available
<input type="checkbox"/> Incorrect information used previously	<input type="checkbox"/> Taxonomic change affecting the species
<input type="checkbox"/> Previously incorrect application of the Red List Criteria	

6. Current Population Trend (tick (3) one of the following):

<input type="checkbox"/> Increasing	<input type="checkbox"/> Decreasing	<input type="checkbox"/> Stable	<input checked="" type="checkbox"/> Unknown
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7. Date of Assessment (day/month/year):

4th June 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Nayarit, Jalisco, Guerrero, Michoacán, Colima, Oaxaca

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Mesoamerican seasonally dry forest.

Habitats Authority:

Forest:

1.5. Subtropical/Tropical Dry

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mexican tropical semi-seasonal and seasonally dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

Found in the Chamela-Cuixmala Biosphere Reserve in Jalisco. Possibly also present in Huatulco National Park, Oaxaca- requires confirmation.

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

International Legume Database & Information Service (ILDIS) (2005)
<http://www.ildis.org/>

Salas-Morales, S.H., Saynes-Vázquez, A., & Schibli, L. (2003) Flora de la costa de Oaxaca: lista florística de la región de Zimatán. *Boletín de la Sociedad Botánica Mexicana*, 72, 21-58.

Gordon, JE; Hawthorne, WD; Reyes-García, R; Sandoval, G; Barrance, AJ (2004) Assessing Landscapes: A case study of tree and shrub diversity in the seasonally dry tropical forests of Oaxaca, Mexico and southern Honduras. *Biological Conservation* 117, 449-442

McVaugh, R. (1987) *Leguminosae* in Flora Novo-Galiciana vol 5: 1-786; ed Anderson, W. R. University of Michigan Press, Ann Arbor

Lott, E.J. (in prep) Listado Anotado De Las Plantas Vasculares De Chamela-Cuixmala

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Lonchocarpus magallanesii M. Sousa

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

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1c. English Common Name (if known)

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1d. Other Common Names (if known and state language)

--

2a. Order

2b. Family

FABALES

LEGUMINOSAE- PAPILIONOIDEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Jalisco, Colima, Michoacán

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

This tree has an extent of occurrence greater than 20 000 km², but is restricted to the seasonal forests of the Pacific coastal dry forests of central western Mexico.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

<input type="checkbox"/> Genuine change in status of species	<input type="checkbox"/> New or better information available
<input type="checkbox"/> Incorrect information used previously	<input type="checkbox"/> Taxonomic change affecting the species
<input type="checkbox"/> Previously incorrect application of the Red List Criteria	

6. Current Population Trend (tick (3) one of the following):

<input type="checkbox"/> Increasing	<input type="checkbox"/> Decreasing	<input type="checkbox"/> Stable	<input checked="" type="checkbox"/> Unknown
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7. Date of Assessment (day/month/year):

5th June 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Jalisco, Colima, Michoacán

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Mesoamerican seasonally dry forest.

Habitats Authority:

Forest:

1.5. Subtropical/Tropical Dry

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mexican tropical semi-seasonal and seasonally dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

Known from the Chamela-Cuixmala Biosphere Reserve in Jalisco, Mexico.

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

McVaugh, R. (1987) *Leguminosae* in Flora Novo-Galiciana vol 5: 1-786; ed Anderson, W. R. University of Michigan Press, Ann Arbor

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

International Legume Database & Information Service (ILDIS) (2005)
<http://www.ildis.org/>

Lott, E.J. (in prep) Listado Anotado De Las Plantas Vasculares De Chamela-Cuixmala

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Lonchocarpus yucatanensis Pittier

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

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1c. English Common Name (if known)

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1d. Other Common Names (if known and state language)

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2a. Order

2b. Family

FABALES	LEGUMINOSAE- PAPILIONOIDEAE
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3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Campeche, Yucatán, Quintana Roo
Guatemala (Peten)
Belize?

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

- | | |
|--------------------------|----------------------------|
| <input type="checkbox"/> | Extinct (EX) |
| <input type="checkbox"/> | Extinct in the Wild (EW) |
| <input type="checkbox"/> | Critically Endangered (CR) |
| <input type="checkbox"/> | Endangered (EN) |

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

<input type="checkbox"/>	Vulnerable (VU)	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
<input checked="" type="checkbox"/>	Near Threatened (NT)	
<input type="checkbox"/>	Least Concern (LC)	
<input type="checkbox"/>	Data Deficient (DD)	
<input type="checkbox"/>	Not Evaluated (NE)	

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

This tree has an extent of occurrence greater than 20 000 km², but is restricted to the seasonal forests of the Greater Yucatán Peninsula.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- | | |
|--|---|
| <input type="checkbox"/> Genuine change in status of species | <input type="checkbox"/> New or better information available |
| <input type="checkbox"/> Incorrect information used previously | <input type="checkbox"/> Taxonomic change affecting the species |
| <input type="checkbox"/> Previously incorrect application of the Red List Criteria | |

6. Current Population Trend (tick (3) one of the following):

- | | | | |
|-------------------------------------|-------------------------------------|---------------------------------|---|
| <input type="checkbox"/> Increasing | <input type="checkbox"/> Decreasing | <input type="checkbox"/> Stable | <input checked="" type="checkbox"/> Unknown |
|-------------------------------------|-------------------------------------|---------------------------------|---|

7. Date of Assessment (day/month/year):

4th June 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Campeche, Yucatán, Quintana Roo
Guatemala (Peten)

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Mesoamerican seasonally dry forest.

Habitats Authority:

Forest:

1.5. Subtropical/Tropical Dry

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mexican tropical semi-seasonal and seasonally dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

Known from the Region of the Calakmul Biosphere Reserve.

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

International Legume Database & Information Service (ILDIS) (2005)
<http://www.ildis.org/>

Martínez, E., M. Sousa S., and C.H. Ramos Álvarez (2001) *Listados Florísticos de México. Vol. XXII. Región de Calakmul, Campeche*, Mexico City: UNAM.

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Eugenia hondurensis Ant. Molina

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

Guacuco (Spanish)

2a. Order

MYRTALES

2b. Family

MYRTACEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Honduras, Nicaragua

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence of this shrub is inferred to be > 20 000 km² but <100 000 km² and therefore does not qualify for VU status, however, the range of the species is entirely within the highly disturbed and fragmented seasonal forests of western Nicaragua and southern Honduras.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

27th May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

S Honduras and W Nicaragua

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

Locally abundant, including in disturbed habitat.

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Mesoamerican tropical semi-seasonal and seasonally dry forest.

Habitats Authority:

Forest:

1.5. Subtropical/Tropical Dry

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mexican tropical semi-seasonal and seasonally dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

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g. Utilization

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11. Literature References (cited in full) used for the assessment and documentation

Steven, W.D.; Ulloa Ulloa, C.; Pool, A. & Montiel, O.M. (2001) Flora de Nicaragua, Vol 2. Missouri Botanical Gardens, St Louis.

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Gordon, JE; Hawthorne, WD; Reyes-García, R; Sandoval, G; Barrance, AJ (2004) Assessing Landscapes: A case study of tree and shrub diversity in the seasonally dry tropical forests of Oaxaca, Mexico and southern Honduras. *Biological Conservation* 117, 449-442

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Grajalesia fasciculata (Standl.) Miranda

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

Pisonia fasciculata Standl.

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

CARYOPHYLLALES

NYCTAGINACEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Colima, Oaxaca
Guatemala
El Salvador
Honduras
Nicaragua

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence inferred to be > 20 000 km².

A shrub restricted to seasonally dry tropical forest. This forest type in Mesoamerica continues to be subject to clearance and fragmentation. Within its known range the species is under-collected, suggesting it is not locally common. In particular its northern range (Mexico and Guatemala) is represented by very few collections in MO (Tropicos) and MEXU, and in Nicaragua it is known only from its type. The highly disjunct population structure makes this species highly susceptible to further agricultural expansion within its range.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

- ☐ Genuine change in status of species ☐ New or better information available
- ☐ Incorrect information used previously ☐ Taxonomic change affecting the species
- ☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

27th May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Colima (?), Oaxaca
Guatemala
El Salvador
Honduras
Nicaragua

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

Populations are fragmented by agriculture.

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mexican tropical dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

Pérez-García EA & Meave, JA (2005) Heterogeneity of xerophytic vegetation of limestone outcrops in a tropical deciduous forest region in southern México *Plant Ecology* 175, 147-163

Steven, W.D.; Ulloa Ulloa, C.; Pool, A. & Montiel, O.M. (2001) Flora de Nicaragua, Vol 2. Missouri Botanical Gardens, St Louis.

Gordon, JE; Hawthorne, WD; Reyes-García, R; Sandoval, G; Barrance, AJ (2004) Assessing Landscapes: A case study of tree and shrub diversity in the seasonally dry tropical forests of Oaxaca, Mexico and southern Honduras. *Biological Conservation* 117, 449-442

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Seasonal/Dry forest conversion and fragmentation:

Janzen, D.H., (1988) *Tropical dry forests: the most endangered major tropical ecosystems*, in Biodiversity, E.O. Wilson, Editor., National Academy Press: Washington DC, USA. p. 130-137.

Murphy, P.G. & A.E. Lugo, (1995) *Dry Forests of Central America and the Caribbean*, in Seasonally Dry Tropical Forests, S.H. Bullock, H.A. Mooney, and E. Medina, Editors. Cambridge University Press: Cambridge. p. 9-34.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Ziziphus guatemalensis Hemsl.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

RHAMNALES

2b. Family

RHAMNACEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Guatemala, Honduras, Nicaragua, Costa Rica

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

	Extinct (EX)	
	Extinct in the Wild (EW)	
	Critically Endangered (CR)	
	Endangered (EN)	
	Vulnerable (VU)	
X	Near Threatened (NT)	
	Least Concern (LC)	
	Data Deficient (DD)	
	Not Evaluated (NE)	

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence inferred to be $> 20\,000\text{ km}^2$.

A shrub restricted to seasonal dry forests and matorral on coastal plain from NW Costa Rica and SW Guatemala, in region continues to be subject to clearance and fragmentation.

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- ☐ Genuine change in status of species ☐ New or better information available
☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

30th May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Pacific costal plain of Guatemala, Honduras, Nicaragua, Costa Rica

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

Populations fragmented by agriculture.

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mexican tropical dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

1.3.3 Wood

1.3.3.1 Small scale subsistence

f. Conservation Actions (including presence in protected areas and national legislation)

Reported from the Guanacaste Conservation Area

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

Steven, W.D.; Ulloa Ulloa, C.; Pool, A. & Montiel, O.M. (2001) *Flora de Nicaragua*, Missouri Botanical Gardens, St Louis.

Janzen, D.H. & Liesner, R. (1980) Annotated checklist of plants of lowland Guanacaste Province, Costa Rica, exclusive of grasses and non-vascular cryptograms. *Brenesia*, 18, 15-90.

w3Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Seasonal/Dry forest conversion and fragmentation:

Janzen, D.H., (1988) *Tropical dry forests: the most endangered major tropical ecosystems*, in Biodiversity, E.O. Wilson, Editor., National Academy Press: Washington DC, USA. p. 130-137.

Murphy, P.G. & A.E. Lugo, (1995) *Dry Forests of Central America and the Caribbean*, in Seasonally Dry Tropical Forests, S.H. Bullock, H.A. Mooney, and E. Medina, Editors. Cambridge University Press: Cambridge. p. 9-34.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Randia longiloba Hemsl.

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

RUBIALES

2b. Family

RUBIACEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Campeche, Yucatán, Quintana Roo

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

<p>Extent of occurrence inferred to be > 20 000 km² but <100 000 km².</p> <p>A shrub restricted to seasonally dry tropical forest of the north of Mexico's Yucatán Peninsula where this forest type continues to be subject to clearance and fragmentation.</p>

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

<input type="checkbox"/> Genuine change in status of species	<input type="checkbox"/> New or better information available
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- ☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

31th May 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Campeche, Yucatán, Quintana Roo

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Habitats Authority:

Forest:

1.5. Subtropical/Tropical Dry

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mexican tropical dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

Known from the Calakmul Biosphere Reserve, Campeche, Mexico

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Hawthorne, W H & Hughes C E (unpublished) *Draft annotated checklist for seasonal forest of Quintana Roo, Mexico, DFID*

Martínez, E., M. Sousa S., and C.H. Ramos Álvarez (2001) *Listados Florísticos de México. Vol. XXII. Région de Calakmul, Campeche*, Mexico City: UNAM.

Andersson, L. (1992) A provisional checklist of Neotropical Rubiaceae *Scripta Botanica Belgica* 1

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.

RED LIST ASSESSMENT

Questionnaire

(please complete one questionnaire per taxon, extra sheets may be used)

1a. Scientific name (including authority details):

Heliocarpus attenuatus S. Watson

1b. Synonym/s (if there has been a taxonomic change in the last 5 years or if widely used)

1c. English Common Name (if known)

1d. Other Common Names (if known and state language)

2a. Order

2b. Family

MALVALES

TILIACEAE

3. Distribution (describe the range in terms of countries of occurrence, subcountry units e.g. states, provinces, etc.; for an inland water taxon use the name/s of the lakes, river systems, etc. it occurs in; for a marine taxon use names of estuaries, territorial waters, FAO fisheries areas)

Mexico: Chihuahua, Sonora

Note: A distribution map showing the Extent of Occurrence **MUST** be attached.

3a. Red List Assessment (using the revised 2001 IUCN system), tick (3) one of the following:

<input type="checkbox"/>	Extinct (EX)
<input type="checkbox"/>	Extinct in the Wild (EW)
<input type="checkbox"/>	Critically Endangered (CR)
<input type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input checked="" type="checkbox"/>	Near Threatened (NT)
<input type="checkbox"/>	Least Concern (LC)
<input type="checkbox"/>	Data Deficient (DD)
<input type="checkbox"/>	Not Evaluated (NE)

3b. Fill in the Red List Criteria met (e.g. A2c+3c; B1ab(iii); D) alongside the appropriate Red List Category

Note: If one of the threatened categories is selected (i.e. CR, EN or VU) then **ALL** the criteria, subcriteria and sub-subcriteria met for that category, must be listed in the box provided.

4. Rationale for the Red List Assessment (Including whatever population or range information were used, inferences, assumptions, etc. For NT specify what criteria were nearly met and for DD specify what little information is known. Use additional sheets if necessary.)

Extent of occurrence inferred to be > 20 000 km² but <100 000 km².

A small tree restricted to seasonally dry tropical forest of Sonora and Mexico in NW Mexico where this forest type continues to be subject to clearance and fragmentation.

5. Reason for Change in Red List Assessment from that in the 2000 Red List (see www.redlist.org) tick (3) at least one of the following:

<input type="checkbox"/> Genuine change in status of species	<input type="checkbox"/> New or better information available
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- ☐ Incorrect information used previously ☐ Taxonomic change affecting the species
☐ Previously incorrect application of the Red List Criteria

6. Current Population Trend (tick (3) one of the following):

- ☐ Increasing ☐ Decreasing ☐ Stable ☒ Unknown

7. Date of Assessment (day/month/year):

3rd June 2005

8. Name/s of the Assessor/s

J E Gordon

9. Names of the Evaluators - to be filled in By Red List Authority ONLY
(at least two, and the name of the Red List Authority)

10. Brief notes i.e. a short narrative, on the topics below to complement the information entered above or on the Authority Files in Annex 1 (use additional sheets if required):

a. Taxonomy (any taxonomic notes of relevance - optional)

b. Geographic Range (including mention of important sites, and if known specify the extent of occurrence and area of occupancy)

Mexico: Chihuahua, Sonora

c. Population (for example, population size, abundance (rare, scarce, common, etc.), number and size of subpopulations if known, number of locations and degree of fragmentation)

d. Habitat and Ecology (including particulars about breeding ecology if relevant)

Habitats Authority:

Forest:

1.5. Subtropical/Tropical Dry

Scrubland

3.5 Subtropical/Tropical Dry

e. Threats (the main threats to the species, and if known, the severity and extent)

Fragmentation and conversion of Mexican tropical dry forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.1. Shifting agriculture

1.1.1.2. Small-holder farming

f. Conservation Actions (including presence in protected areas and national legislation)

g. Utilization

11. Literature References (cited in full) used for the assessment and documentation

w³Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

Fishbein, M., Wilson, R.K., Yetman, D.A., Jenkins, P., & Martin, P.S. (1998). Annotated list of Río Mayo vascular plants. In *Gentry's Río Mayo Plants: The tropical deciduous forest and environs of northwest Mexico*. eds P.S. Martin, D.A. Yetman, M. Fishbien, P. Jenkins, T.R. van Devender & R.K. Wilson, pp. 167-522. University of Arizona Press, Tuscon.

Seasonal/Dry forest conversion and fragmentation:

Trejo, I. & R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. *Biological Conservation* 94(2): p. 133-142.