

## Provisional Red List of Trees of Mesoamerican Dry Tropical Forests

### Species previously assessed whose status was left unchanged

#### Bombacaceae:

*Bombacopsis quinata* (Jacq.) Dugand. VU

#### Euphorbiaceae

*Jatropha bullockii* E.J. Lott VU

*Jatropha chamelensis* Jerez-Jiménez VU

#### Fagaceae

*Quercus albocincta* Trel. LC

#### Leguminosae (Papilionoidae)

*Dalbergia retusa* Hemsl. VU

Species previously assessed whose status has been changed:

## RED LIST ASSESSMENT

### Questionnaire

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

**1a. Scientific name** (including authority details):

*Agonandra macrocarpa* 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**

SANTALES

OPILIACEAE

**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) Nicaragua, Honduras, Costa Rica

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

**3a. Red List Assessment** (using the revised 2001 IUCN system), **3b. Fill in the Red List Criteria** met (e.g. A2c+3c; B1ab(iii); D) alongside the

tick (3) one of the following:

appropriate Red List Category

<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 type="checkbox"/>	Near Threatened (NT)	
<input checked="" 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 widespread small tree is found in forests and secondary successions in dry forest areas across Central America and into SE Mexico. The previous listing of *this species* as VU C2a is incorrect, as it does not take into account the Mexican and Nicaraguan distribution of this species.

**5. Reason for Change in Red List Assessment from that in the 2000 Red List** (see [www.redlist.org](http://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):

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, Yucatán, Quintana Roo) Nicaragua, Honduras, 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)

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

Seasonally dry tropical forest, and transition to pine forest.  
Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

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

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

Known from the Guanacaste Conservation Area and the region of the Calakmul Biosphere Reserve in Campeche, Mexico

**g. Utilization**

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

w<sup>3</sup>Tropicos (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.

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

## RED LIST ASSESSMENT

### Questionnaire

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

#### 1a. Scientific name (including authority details):

*Lonchocarpus minimiflorus* Donn. 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

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)

Mexico (Chiapas) Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama

**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 type="checkbox"/>	Near Threatened (NT)	
<input checked="" 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 widespread species is found in forests and secondary successions and other disturbed vegetation in dry forest areas across Central America and into southern Mexico. Its previous assessment of EN C2b cannot be justified as there are undoubtedly more than 2500 individuals and they are not limited to a single subpopulation.

**5. Reason for Change in Red List Assessment from that in the 2000 Red List** (see [www.redlist.org](http://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 checked="" 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):

☐ 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 (Chiapas) Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica, Panama

**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, and transition to pine forest.

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

3.5 Dry scrubland

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

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

Known from the Guanacaste Conservation Area

**g. Utilization**

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

w<sup>3</sup>Tropicos (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.

Reyes-García, A. & Sousa S., M. (1997) *Listados Florístico de México: Depresión Central de Chiapas: La Selva Baja Caducifolia*. UNAM, Mexico City.

International Legume Database & Information Service (ILDIS) (2005)  
<http://www.ildis.org/>

## RED LIST ASSESSMENT

### Questionnaire

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

#### **1a. Scientific name** (including authority details):

*Casearia williamsiana* Sleumer

#### **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)

Honduras (El Paraíso, Fco Morazán)  
Nicaragua (Estelí, Madriz)

**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 checked="" type="checkbox"/>	Endangered (EN)	B1a b(iii)
<input type="checkbox"/>	Vulnerable (VU)	
<input 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 inferred to be < 5 000 km<sup>2</sup>.

Limited to the seasonally dry forest areas of southern Honduras and northern Nicaragua. The forests of this region is highly fragmented, but species is known from disturbed vegetation.

Updated from previous assessment which assumed species was endemic to Honduras.

**5. Reason for Change in Red List Assessment from that in the 2000 Red List** (see [www.redlist.org](http://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 checked="" 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):

☐ 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)

Honduras (El Paraíso, Fco Morazán)  
Nicaragua (Estelí, Madriz)

**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, and transition to pine 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 Central American forests.

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

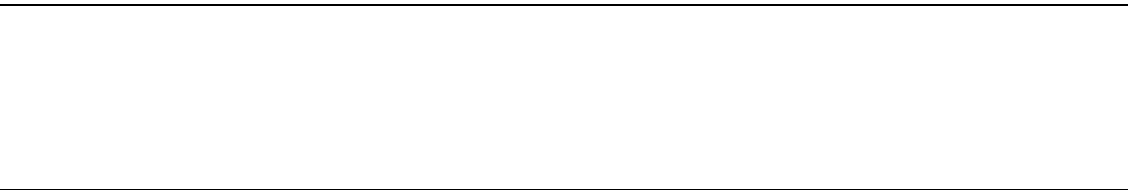
1.1.4 Livestock

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.

**g. Utilization**



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

w<sup>3</sup>Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

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

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



## RED LIST ASSESSMENT

### Questionnaire

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

#### **1a. Scientific name** (including authority details):

*Garcia nutans* Vahl

#### **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, El Salvador, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Haiti, Leeward Islands

**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 type="checkbox"/>	Near Threatened (NT)
<input checked="" 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 &gt; 20 000 km<sup>2</sup>, area of occupancy &gt; 2000 km<sup>2</sup>,</p> <p>This is a very widespread species- although naturalized introductions may account for part of its range.</p> <p>Previous assessment is based on it being a Colombian endemic. Collections in the Missouri Botanic Garden and INBIO herbaria (Costa Rica) confirm that this is not the case and that it is very widely distributed. (Also references listed below).</p> <p>Its ecological preferences are also wide- it is found in both dry and seasonal forests</p>
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**5. Reason for Change in Red List Assessment from that in the 2000 Red List** (see [www.redlist.org](http://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, El Salvador, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Haiti, Leeward Islands

**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)

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

**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

w<sup>3</sup>Tropicos (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.

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.

## RED LIST ASSESSMENT

### Questionnaire

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

**1a. Scientific name** (including authority details):

*Ateleia gummifera* (Bertero ex DC.) D. Dietr.

**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 (Campeche, Quintana Roo) Guatemala, Belize, Nicaragua, Costa Rica, Panama, Cuba, Dominican Republic

**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 type="checkbox"/>	Near Threatened (NT)
<input checked="" 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 species has a wide distribution in dry forest area in Mesoamerica and the Caribbean. Extent of occurrence is > 100 000 km<sup>2</sup>, therefore LC.

Previous assessment was based only on consideration of the species in Cuba

**5. Reason for Change in Red List Assessment from that in the 2000 Red List** (see [www.redlist.org](http://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):

12<sup>th</sup> 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) Guatemala, Belize, Nicaragua, Costa Rica, Panama, Cuba, Dominican Republic



**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 and Caribbean 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)**

**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

w<sup>3</sup>Tropicos (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 1. Missouri Botanical Gardens, St Louis.

## RED LIST ASSESSMENT

### Questionnaire

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

**1a. Scientific name** (including authority details):

*Vitex 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)

Balona (Spanish- Nicaragua)

**2a. Order**

LAMIALES

**2b. Family**

VERBENACEAE

**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 (Chiapas, Tabasco, Campeche, Yucatán, Quintana Roo)  
Belize, Guatemala, Honduras, Nicaragua  
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 type="checkbox"/>	Near Threatened (NT)
<input checked="" 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 > 100 000 km<sup>2</sup>.

Previous assessment (EN C2a) is based on incomplete knowledge of distribution, not including Nicaragua and inference that species is represented by fewer than 2500 mature individuals. This widespread species is undoubtedly represented by more than 10 000 individuals. Despite pressure on forests of its native range, the species is observed to regenerate on roadsides and in secondary regeneration.

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

<input type="checkbox"/> Genuine change in status of species	<input checked="" type="checkbox"/> 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):

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 (Michoacán, Guerrero, Chiapas, Tabasco, Campeche, Yucatán, Quintana Roo)  
Belize, Guatemala, Honduras, Nicaragua  
Colombia?

**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)**

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

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

**g. Utilization**

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

w<sup>3</sup>Tropicos (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.

Steven, W.D.; Ulloa Ulloa, C.; Pool, A. & Montiel, O.M. (2001) *Flora de Nicaragua, Vol 3*. Missouri Botanical Gardens, St Louis.

## RED LIST ASSESSMENT

### Questionnaire

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

#### **1a. Scientific name** (including authority details):

*Guaiacum coulteri* 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)

Lignum Vitae

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

Guayacán (Spanish)

#### **2a. Order**

SAPINDALES

#### **2b. Family**

ZYGOPHYLLACEAE

#### **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, Nayarit, Jalisco, 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 checked="" type="checkbox"/>	Endangered (EN)
<input type="checkbox"/>	Vulnerable (VU)
<input 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

A2 c & d

**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.)

Based on Gordon *et al* (2005):  
Greater than 50% loss of mature individuals due to selective logging and loss of dry forest in the species native range (the species regenerates poorly in secondary vegetation)  
Previous assessment (LR/cd) gives no justifications.

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

<input type="checkbox"/> Genuine change in status of species	<input checked="" type="checkbox"/> 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):

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)

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

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Mexico (Sonora, Sinaloa, Nayarit, Jalisco, Michoacán, 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)**

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

.3.3 Wood

1.3.3.1 Small scale subsistence

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

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

**g. Utilization**

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

Gordon, J.E.; González, M-A.; Vazquez-Hernández, J.; Ortega Lavariega, R.; Reyes-García, A. (2005) *Guaiacum coulteri*: an over-logged dry forest tree of Oaxaca, Mexico. *Oryx* 39(1): p. 82-85.

w<sup>3</sup>Tropicos (2005). Missouri Botanic Gardens, <http://mobot.mobot.org/W3T>.

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

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.