

## RED LIST ASSESSMENT

### Questionnaire

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

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

*Achatocarpus oaxacanus* 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**

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: 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"/>
<input type="checkbox"/>
<input type="checkbox"/>

Extinct (EX)

Extinct in the Wild (EW)

Critically Endangered (CR)

**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"/>	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.)

Collected only in Oaxacan coastal dry forest. Extent of occurrence inferred to be < 5000 km<sup>2</sup>  
Forest in this region continues to be fragmented and converted.

**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):

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

20/4/2005

**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)

Possibly present in Communally protected areas of the Municipality of Santa María Huatulco in Oaxaca- not yet confirmed.

**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)

Scarce

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

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

Understorey treelet.

**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

Regeneration of this species is probably compatible with traditional agriculture, which includes long fallow cycles, in its native range

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

**g. Utilization**

None known

## 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.

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):

*Sapranthus palanga* R.E.Fr.

**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**

Magnoliales

**2b. Family**

Annonaceae

**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)

Costa Rica: Alejuela, Guanacaste  
Nicaragua: Rivas, Granada, Carazo

**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 checked="" 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

B1a b(iii)

**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 inferred to be < 20 000km<sup>2</sup>, forest type is severely fragmented and highly disturbed (decline in quality)

**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):

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)

Extent of occurrence is inferred to be < 20 000km<sup>2</sup>

Known from the Guanacaste Conservation Area, 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)

Population likely to be highly fragmented given nature of seasonally dry tropical forest within its range, but locally common.

**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

1.1.1.2. Small-holder farming

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

Reported from the Guanacaste Conservation Area, Costa Rica.

## g. Utilization

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

Gillespie, T (unpublished) *Family and scientific names of plants encountered in tropical dry forest of Nicaragua*

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

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

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):

*Bourreria rubra* Lott & Miller

**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**

Lamiales

**2b. Family**

Boraginaceae

**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)

**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

B2a b(iii)

**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 < 5000 km<sup>2</sup> Limited to the seasonally dry tropical forest and Jalisco- on SW coast of Mexico. This forest type is highly fragmented and disturbed. 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](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):

22/04/2005

**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)

Found in Chamela-Cuixmala Biosphere Reserve of 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)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.2. Small-holder farming

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

**g. Utilization**

Not known

**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*

w<sup>3</sup>Tropicos (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 krusei* 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: 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 checked="" 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

B2a b(iii)

**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<sup>2</sup> This undercollected tree is limited to the seasonally dry tropical at two locations in Guerrero and Oaxaca on SW coast of Mexico. This forest type is highly fragmented ad disturbed. 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](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):

**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)

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

1.1.1.2. 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

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.

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 palaciosii* Rzed. & Calderón

**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

**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 checked="" type="checkbox"/>	Critically Endangered (CR)
<input 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

B1a c(i)

**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 small tree inferred to be  $< 100 \text{ km}^2$  Limited to the seasonally dry tropical at one location in Jalisco on SW coast of Mexico. This forest type is highly fragmented and disturbed. Adaptability of species to disturbance is not known.

This newly described species (2000) may rapidly increase its extent of occurrence as recognition spreads.

**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):

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)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

1.1.1.2. Small-holder farming

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

Known from the Chamela-Cuixmala Reserve



## 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>.

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

Rzedowski, J & Calderón, G (2000) Tres Nuevas Especies de *Bursera* (Burseraceae) de la Región Costera del Occidente de México *Acta Botánica Mexicana* 50: 47-59

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 sonorae* 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)

Sonoran persimmon

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

Guayparín (Spanish)

**2a. Order**

EBENALES

**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: 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 checked="" 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

B1a b(iii)

**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<sup>2</sup>. Limited to the seasonally dry tropical forest scrub in Sonora on west coast of Mexico. This habitat 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](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):

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)

**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- Yetman et al (2000)

**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)

Fragmentation and conversion of Mesoamerican seasonally dry tropical forest scrub.

Threat Auth:

1.1. Agriculture

1.1.1. Crops

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)

Presence in protected areas not established, but it is reported to be occasionally planted locally for its fruit.

**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>.

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.

Yetman, D.A., Van Devender, T.R., Estudillo, L., & Reina Guerrero, A.L. (2000). Monte Mojino: Mayo people and trees in southern Sonora. In *The Tropical Deciduous Forest of Alamos: biodiversity of a threatened ecosystem*. eds R.H. Robichaux & D.A. Yetman, pp. 142-151. 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):

*Bernardia spongiosa* 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 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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

Limited to the seasonally dry tropical forest in Jalisco, Colima and Michoacan 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](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):

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, Colima, Michoacan

**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)

Found in the Chamela-Cuixmala Biosphere Reserve

**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>.

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

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):

*Bernardia wilburii* 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

**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

B1a b(iii)

**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 tropical forest in Jalisco, 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](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):

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- (Cuixmala)

**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

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

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

Found in the Chamela-Cuixmala Biosphere Reserve

**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>.

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

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 alamanii* Müll. Arg.

**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: Nayarit, 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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

An apparently little collected species, limited to the seasonally dry tropical forest in Oaxaca and Nayarit. 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](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: Nayarit, 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

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

1.1.4 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

w<sup>3</sup>Tropicos (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

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):

*Jatropha bullockii* E.J. Lott

#### **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

**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

B1a b(iii)

**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>.

An apparently little collected species, limited to the seasonally dry tropical forest in Jalisco a forest type that 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](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):

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



**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

3.5 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)**

Present in the Chamela-Cuixmala Biosphere Reserve, Jalisco

**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>.

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

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 purpurea* 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**

**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, 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 checked="" 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

B1a b(iii)

**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>. An apparently little collected species- no specimens listed in Missouri Botanical Gardens (w3Tropicos) or Nationaal Herbarium Nederland. Limited to the seasonally dry tropical forest (thorn scrub) in SW Sonora & W Sinaloa. 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](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):

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: SW Sonora W 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)

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

1.1.1.2. Small-holder farming

1.1.4 Livestock

1.1.4.2 Small holder

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

Presence in protected areas not established.

**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>.

Nationaal Herbarium Nederland (2005) <http://145.18.162.53:81/c8>

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, Tuscon.

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):

*Manihot oaxacana* D.J. Rogers & Appan

**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: 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

B1a b(iii)

**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 tropical forest of the Tehuantepec Isthmus of Oaxaca where it is a locally common understorey shrub in deciduous thorn scrub. This forest type is highly fragmented, but species has been observed regenerating in secondary successions (forest fallows).

**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):

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: Oaxaca (Tehuantepec)

**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 thorn scrub and forest

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. Within the species' native range small holder agriculture is a cause of forest disturbance, although tourism development is probably a greater threat

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

1.4. Infrastructure development

1.4.2 Human settlement

1.4.3 Tourism/recreation

**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

Rogers, D.J. & Appan, S.G. (1973) *Manihot*, Monograph 13 in *Flora Neotropica* Hafner Press New York

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.

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):

*Brongniartia bracteolata* Micheli

**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: 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 checked="" 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

B1a b(iii)

**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<sup>2</sup>. Limited to Mexican seasonally dry forest areas of eastern Oaxaca and the Central Depression of Chiapas- forest and thorn scrub in these areas are subject to disturbance and fragmentation.

**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):

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- Eastern Oaxaca and W Chiapas.



**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

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 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 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>.

Reyes-García, A. & Sousa S., M. (1997) *Depresión Central de Chiapas: La Selva Baja Caducifolia*. 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):

*Caesalpinia coccinea* G.P. Lewis & J.L. Contr.

**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: 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

B1a b(iii)

**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 Mexican seasonally dry forest areas of coastal Oaxaca, near Huatulco where expansion of tourism industry must be considered a threat to the species. It does, however, regenerate in disturbed forest margins.

**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):

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- 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)**

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

1.4. Infrastructure development

1.4.2 Human settlement

1.4.3 Tourism/recreation

**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

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

<p>w<sup>3</sup>Tropicos (2005). Missouri Botanic Gardens, <a href="http://mobot.mobot.org/W3T">http://mobot.mobot.org/W3T</a>.</p> <p>Lewis, G.P. (1998) <i>Caesalpinia</i> Royal Botanic Gardens, Kew</p> <p>Salas-Morales, S.H., Saynes-Vázquez, A., &amp; Schibli, L. (2003) Flora de la costa de Oaxaca: lista florística de la región de Zimatán. <i>Boletín de la Sociedad Botánica Mexicana</i>, 72, 21-58.</p> <p>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. <i>Biological Conservation</i> 117, 449-442</p> <p>Seasonal/Dry forest conversion and fragmentation:</p> <p>Trejo, I. &amp; R. Dirzo, (2000) Deforestation of seasonally dry tropical forest: a national and local analysis in Mexico. <i>Biological Conservation</i> 94(2): p. 133-142.</p>
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## RED LIST ASSESSMENT

### Questionnaire

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

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

*Conzattia chiapensis* Miranda

**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: 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 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

B1a b(iii)

**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 Mexican seasonally dry forest areas in the Central Depression of Chiapas. Forest in has undergone extensive conversion.

**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):

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- Chiapas.

**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)**

Little known of its ecology

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)**

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>.

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

Reyes-García, A. & Sousa S., M. (1997) *Depresión Central de Chiapas: La Selva Baja Caducifolia*. 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):

*Acacia pringlei* Rose ssp. *californica* (Brandeggee) Lee, Seigler & Ebinger

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

*Acacia californica* Brandeggee

#### **1c. English Common Name** (if known)

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

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

FABALES

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

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: Baja California Sur, 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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

Limited to Mexican thorn scrub, in two widely disjunct populations.

**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):

10 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 Sur, 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)**

Thorn scrub

Habitats Authority:

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

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>.

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

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.

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):

*Acacia willardiana* 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)

Palo blanco -Spanish

**2a. Order**

FABALES

**2b. Family**

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: 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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

Small tree limited to Mexican thorn scrub in north of Sonora, Mexico, the species is locally common.

**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):

10 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.

**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)**

Thorn scrub

Habitats Authority:

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)**

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>.

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

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.

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):

*Albizia sinaloënsis* Britton & 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)

Palo joso -Spanish

**2a. Order**

FABALES

**2b. Family**

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: southern Sonora, northern 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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

Limited to Mexican thorn scrub and seasonally dry forest in north of Sinaloa and south of Sonora, Mexico.

**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):

10 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

**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)**

Thorn scrub and seasonally dry tropical forest

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)**

Not known to be present in any protected area.

**g. Utilization**

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## 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>.

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

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.

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

Yetman, D.A., Van Devender, T.R., Estudillo, L., & Reina Guerrero, A.L. (2000). Monte Mojino: Mayo people and trees in southern Sonora. In *The Tropical Deciduous Forest of Alamos: biodiversity of a threatened ecosystem*. eds R.H. Robichaux & D.A. Yetman, pp. 142-151. 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):

*Mimosa albida* var. *pochutlensis* R. Grether

**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, 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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

Limited to Mexican thorn scrub and seasonally dry forest with one population known in Guerrero and another in neighbouring Oaxaca. The preference of this shrub for disturbed areas mitigates against a higher conservation status.

**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):

10 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, 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)**

Thorn scrub and seasonally dry tropical forest

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)**

Not known to be present in any protected area- although it is possible it is present in the Huatulco National Park of Oaxaca which is within its native range.

**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>.

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

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):

*Prosopis articulata* 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)

Mesquite amargo

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

**2a. Order**

FABALES

**2b. Family**

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)

USA: Arizona

Mexico: Baja California Sur, Baja California Norte, 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 checked="" 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

B1a b(iii)

**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 the two principal populations (Baja California and Sonora) inferred to be < 20 000 km<sup>2</sup>.

Limited to thorn scrub of NW Mexico and Arizona (where it may be a naturalized introduction).

**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):

11<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- Baja California Sur, southern coastal Sonora, southern Baja California Norte  
US –Arizona(?)

**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)

Fragmented

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

Thorn scrub

Habitats Authority:

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)

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>.

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

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.

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):

*Zapoteca alinae* H.M. Hern.

**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)

Barba de Chivo (Spanish)

**2a. Order**

FABALES

**2b. Family**

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

**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

B1a b(iii)

**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>.

Endemic to the Mexican state of Oaxaca.

A shrub of the mid-elevation seasonally dry broadleaved forests.

**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):

11<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)

Mid-elevation (1000-2000 m) seasonal forest of Oaxaca, 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)

Fragmented

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

Habitats Authority:

1.9 Subtropical/Tropical Moist Montane

**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

1.3.3.2 Selective logging

**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>.

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

Hernández, H. M. (1989) Systematics of Zapoteca (Leguminosae) *Ann. Missouri Bot. Gard.* 76 : 781-862

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):

*Zapoteca tehuana* H.M. Hern.

**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

**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

B1a b(iii)

**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>.

Endemic shrub of the the Tehuantepec region of Oaxaca, Mexico.

A small shrub of (disturbed) seasonally dry forests

**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):

11<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)

Eastern hills (300 - 800 m) of Oaxaca (Isthmus of Tehuantepec), 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)

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)

Not known to be present in any protected area.

**g. Utilization**

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

Hernández, H. M. (1989) Systematics of Zapoteca (Leguminosae) *Ann. Missouri Bot. Gard.* 76 : 781-862

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

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):

*Gliricidia robustum* (Sousa & Lavin) Lavin

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

*Hybosema robustum* Sousa & Lavin

**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

**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

B1a b(iii)

**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>.

A small tree restricted to the seasonally dry tropical forest in southern Mexico (Chiapas) where this forest type is subject to clearance.

**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):

11<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)

Species recently described (1995) and therefore may prove to be more widespread. Moved to genus *Gliricida* in 2003 (*Systematic Botany* (2003), 28(2): pp. 387–409)

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

Mexico, Chiapas

**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)

No known from any 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>.

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

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

Lavin, M., & Sousa S., M. 1995. Phylogenetic systematics and biogeography of the tribe Robinieae. *Systematic Botany Monographs* 45: 1-165.

Lavin M, Wojciechowski MF, Gasson P, Hughes C, Wheeler E (2003) Phylogeny of robinoid legumes (Fabaceae) revisited: Coursetia and Gliricidia recircumscribed, and a biogeographical appraisal of the Caribbean endemics. *Systematic Botany* 28 (2): 387-409

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 costaricensis* (Donn. Sm.) 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)

Costa Rica (Guanacaste)  
Nicaragua (Carazo)

**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) |

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

<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>.

A tree restricted to the seasonally dry tropical forest in NW Costa Rica and neighbouring SW Nicaragua this forest type has historically suffered from almost complete clearance.

**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 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):

4<sup>th</sup> 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)

Costa Rica (Guanacaste)  
Nicaragua (Carazo)

**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)**

Known from the Guanacaste Conservation Area, Costa Rica.

The species range includes the Chacocente Wildlife Refuge in Nicaragua, but its presence there has not been determined.

**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>.

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

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.

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):

*Lonchocarpus emarginatus* 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: 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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

A tree restricted to the seasonally dry tropical forest of SW Mexico, principally Oaxaca where it is locally common. This forest type has suffered considerable conversion and fragmentation, although in Oaxaca there has been a recent increase in efforts to conserve seasonally dry tropical forest.

**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):

4<sup>th</sup> 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: Oaxaca and Chiapas.

**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)

Huatulco National Park is within the natural range of this species but its presence in the park is not confirmed

**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>.

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

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):

*Lonchocarpus minor* M. Sousa

#### **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

**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

B1a b(iii)

**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>.

A shrub restricted to the seasonally dry tropical forest of Jalisco in western Mexico where it has been collected relatively few times. This forest type has suffered considerable conversion and fragmentation.

**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<sup>th</sup> 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

**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)

Species found in the Chamela-Cuixmala Biosphere Reserve, Jalisco, Mexico

**g. Utilization**

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

McVaugh, R. (1987) Leguminosae in *Flora Novo-Galiciana* 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

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

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):

*Lonchocarpus mutans* M. Sousa

#### **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: Sinaloa, Jalisco, Colima

**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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

An little collected shrub or small tree restricted to the seasonally dry tropical forest of western Mexico in Jalisco and Colima with a disjunct population in Sinaloa. This forest type has suffered considerable conversion and fragmentation.

**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<sup>th</sup> 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: Sinaloa, 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)

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)

Species found in the Chamela-Cuixmala Biospher Reserve, 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

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

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

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):

*Bunchosia sonorensis* 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)

Palo cenizo (Spanish)

**2a. Order**

**2b. Family**

POLYGALALES

MALPIGHIACEAE

**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

**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

B1a b(iii)

**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>.

A small tree or shrub restricted to seasonally dry tropical forest of Sonora in western Mexico where this forest type is subject to clearance and fragmentation. The ability of this species to regenerate following disturbance is not known, although Fishbein et al (1998) report that it is a roadside plant which may suggests disturbance tolerance.

**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):

26<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, 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)

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)

No known from any protected areas.

**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.

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):

*Abutilon grandidentatum* Fryxell

**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**

MALVALES

**2b. Family**

MALVACEAE

**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

**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


**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 < 5 000 km<sup>2</sup>, and species is restricted to seasonal forests in Tehuantepec, SE Oaxaca, where it is locally common.

**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: 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 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

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

Fryxell, P.A. (1988) Malvaceae of Mexico *Systematic Botany Monographs* 25:1-522

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.

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):

*Hibiscus kochii* Fryxell

**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

MALVACEAE

**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

**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 checked="" 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

B1a b(iii)

**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<sup>2</sup> from two apparently disjunct locations in Guerrero and Oaxaca, Mexico

A shrub restricted to seasonally dry tropical forest that has been subject to clearance and fragmentation. The ability of this species to regenerate following disturbance is not known.

**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):

26<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, Oaxaca, 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)

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)

No known from any protected areas.

**g. Utilization**

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

Fryxell, P.A. (1988) Malvaceae of Mexico *Systematic Botany Monographs* 25:1-522

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.

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):

*Ficus pringlei* 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**

URTICALES

MORACEAE

**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 checked="" 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

B1a b(v)

**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<sup>2</sup>.

A tree restricted to seasonally dry tropical forest that continues to be subject to clearance and fragmentation. It is reported to have restricted local population sizes even within its narrow geographic distribution, suggesting narrow habitat specificity (Serrato *et al.* 2004).

The ability of this species to regenerate following disturbance is not known.

**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):

27<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, 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)

Populations fragmented by agriculture.

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

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

1.9. Subtropical/Tropical Moist Montane (Oak 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 Sierra de Manantlán Biosphere Reserve

**g. Utilization**

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

Serrato, A; Ibarra-Manríquez, G & Oyama, K (2004) *Biogeography and conservation of the genus Ficus (Moraceae) in Mexico* Journal of Biogeography 31, 475-485

w<sup>3</sup>Tropicos (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):

*Ficus palmeri* 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**

URTICALES

MORACEAE

**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 Sur, 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 checked="" 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

B1a b(v)

**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<sup>2</sup>.

A tree restricted to seasonally dry tropical forest that continues to be subject to clearance and fragmentation. It is reported to have restricted local population sizes even within its narrow geographic distribution, suggesting narrow habitat specificity (Serrato *et al.* 2004).

The ability of this species to regenerate following disturbance is not known.

**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):

27<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, Baja California Sur, 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)

Populations fragmented by agriculture.

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

Habitats Authority:

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

**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 El Vizcaíno Biosphere Reserve

**g. Utilization**

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



Serrato, A; Ibarra-Manríquez, G & Oyama, K (2004) *Biogeography and conservation of the genus Ficus (Moraceae) in Mexico* Journal of Biogeography 31, 475-485

w<sup>3</sup>Tropicos (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):

*Schoepfia shreveana* Wiggins

**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**

SANTALES

**2b. Family**

OLACACEAE

**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

**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

B1a b(iii)

**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.)

A small tree endemic to the Sonoran desert scrub, but little data is available. Reported by Fishbein et al. (1998) as rare in the state of Sonora, Mexico, and as an extremely narrow endemic in Turner et al (1995).

**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):

28<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)

Sonoran Desert, 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)

Populations are fragmented by agriculture.

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

Habitats Authority:

3.5. Subtropical/Tropical Dry Shrub land

**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

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.

Sleumer, H. O. (1984) Olacaceae, Monograph 38 in *Flora Neotropica* Hafner Press New York

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):

*Piper guanacastense* C. DC.

**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**

PIPERALES

PIPERACEAE

**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)

Costa Rica  
Panama  
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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

A shrub restricted to western Costa Rica and western Panama in region continues to be subject to clearance and fragmentation.

The ability of this species to regenerate following disturbance is not known.

**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):

28<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)

Costa Rica  
Panama  
Nicaragua (?) - type specimen apparently from 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 fragmented by agriculture.

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

Habitats Authority:

1.5 Subtropical/Tropical Dry Forest

1.6. Subtropical/Tropical Moist Lowland

**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

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):

*Prunus zinggii* 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)

Jeco (Spanish)

**2a. Order**

ROSALES

**2b. Family**

ROSACEAE

**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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

A tree restricted to seasonal dry forests and seasonal oak forests in NW Mexico, a region that continues to be subject to clearance and fragmentation.

The ability of this species to regenerate following disturbance is not known.

**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):

30<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: Southern 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)

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)

Not known from any protected areas

**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.

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):

*Esenbeckia hartmanii* Robinson & Fernald

**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**

SAPINDALES

**2b. Family**

RUTACEAE

**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

**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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

A tree restricted to seasonal dry scrub of NW Mexico, a region that 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](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):

31<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: 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)

Populations fragmented by agriculture.

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

Habitats Authority:

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 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 from any protected areas

**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. 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):

*Esenbeckia collina* Brandegees

#### **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**

SAPINDALES

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

RUTACEAE

#### **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

**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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

A tree restricted to Oaxaca in southern Mexico, a region that continues to be subject to forest clearance and fragmentation.

The ability of this species to regenerate following disturbance is not known.

**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):

31<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: 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)

Populations fragmented by agriculture.

**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 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)

Not known from any protected areas

**g. Utilization**

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

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.

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):

*Simira rhodoclada* (Standl.) Steyerm.

#### **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: Guerrero, 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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

A tree restricted to southern Mexico, with few recent collections, in a region that continues to be subject to forest clearance and fragmentation.

The ability of this species to regenerate following disturbance is not known.

**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):

31<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: Oaxaca 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)

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)

Not known from any protected areas

**g. Utilization**

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

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.

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):

*Recchia mexicana* Moc. & Sessé ex DC

**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**

SAPINDALES

**2b. Family**

SIMAROUBACEAE

**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, Oaxaca, 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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

A tree restricted to dry forest of Jalisco, Guerrero and Oaxaca in SW Mexico, a region that continues to be subject to forest clearance and fragmentation.

The ability of this species to regenerate following disturbance is not known.

**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):

2<sup>nd</sup> 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, 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)

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)

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*

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

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):

*Melochia oaxacana* Dorr & L. C. Barnett

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

*Physodium oaxacanum* Dorr & L. C. Barnett

#### **1c. English Common Name** (if known)

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

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

MALVALES

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

STERCULIACEAE

#### **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

**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 checked="" 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

B1a b(iii)

**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<sup>2</sup>.

A tree restricted to dry forest of Chiapas and Oaxaca in SW Mexico, a region that continues to be subject to forest clearance and fragmentation.

The ability of this species to regenerate following disturbance is not known.

**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):

2<sup>nd</sup> 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: Oaxaca, Chiapas

**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)

**g. Utilization**

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



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

Dorr, L.J. & Barnett, L.C. (1989) A revision of *Melochia* (Section *Physodium*) from Mexico *Brittonia* 41: 404-423

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):

*Waltheria conzatii* 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**

MALVALES

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

STERCULIACEAE

#### **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

**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

B1a b(iii)

**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>.

A tree restricted to dry forest of Oaxaca in SW Mexico, a region that continues to be subject to forest clearance and fragmentation.

The ability of this species to regenerate following disturbance is not known.

**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):

2<sup>nd</sup> 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: Oaxaca  
Presence in protected areas not confirmed.

**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)

**g. Utilization**

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

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):

*Jacquinia seleriana* Urb. & Loes. ex Mez

#### **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**

PRIMULALES

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

THEOPRSTACEAE

#### **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

**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

B1a b(iii)

**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>.

A shrub restricted to dry forest and thorn scrub of Oaxaca in SW Mexico, a region that continues to be subject to forest clearance and fragmentation.

The ability of this species to regenerate following disturbance is not known.

**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):

3<sup>rd</sup> 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: Oaxaca  
Presence in protected areas not confirmed.

**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  
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 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)

**g. Utilization**

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

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.