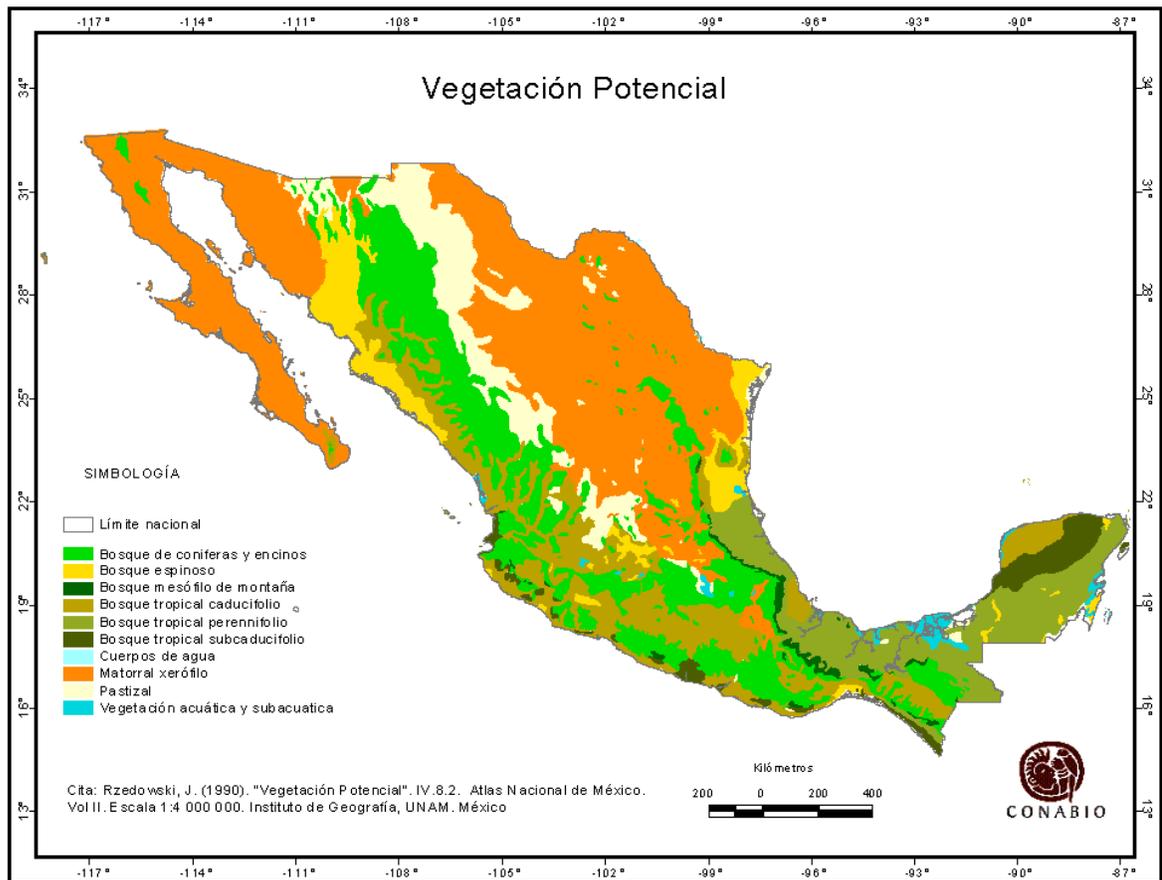


West Mexico Thornforest – SW US Arid Lands Conservation Business Plan

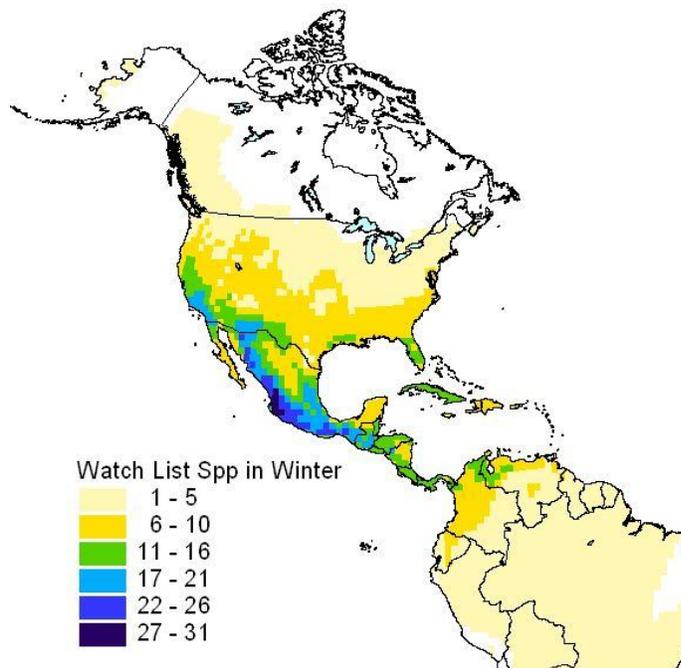
INTRODUCTION:

Geographical Description of Area of interest: West Mexican Thornforest covers the area from near sea level to 725 - 900 m in the mountains that border it on the east. It occurs from isolated pockets in southern Arizona through Sonora, and Baja California to as far south as Chiapas. [More description of geographical area and map.](#)

Habitats included are: West Mexican Thornforest and Sinaloan thornscrub (of Brown 1994) is also called Thornforest, and Tropical Thorn Woodland. There are Sonoran and Viscaíno desert elements as well as heavy representation of southern tropical plant species especially as one moves farther south. Riparian ecosystems are present throughout. Mangroves also occur adjacent to Thornforest and many birds use both habitat types. Grasslands??



The area of West Mexican Thornforest is of interest to bird conservation because of the large number of priority birds (the most priority migrants as any region considered by PIF V Conference) that use this habitat type for both for over-wintering and for breeding. See PIF maps. The region is also rich in endemic species, some of which have legal conservation status (NOM 059 ECOL 2001 **there's a newer version**). Including Bare-throated Tiger-Heron, Peregrine Falcon, West Mexican Chachalaca, Yellow-breasted Crake, Military Macaw, Sinaloa Martin, Elegant Trogon, Pale-billed Woodpecker, and Purplish-backed Jay. **Also add BirdLife species list.**



Priority Shared Species: Black-capped Vireo, Gray Vireo, Varied Bunting, Painted Bunting, Bendire's Thrasher, Five-striped Sparrow, Elf Owl, Reddish Egret, Rufous Hummingbird, and Bell's Vireo.

Important residents: Green Parakeet, Military Macaw, Lilac-crowned Parrot, Crested Guan, Mexican Parrotlet, Vermiculated Screech-Owl, Mangrove Cuckoo, Buff-collared Nightjar, Gray-crowned Woodpecker, Ivory-billed Woodcreeper, Purplish-backed Jay, Red-breasted Chat, Bat Falcon, Rosy Thrush-Tanager, Laughing Falcon, Rufous-bellied Chachalaca, Red-billed Pigeon, Lesser Ground-Cuckoo, Mottled Owl, Sparkling-tailed Hummingbird, Elegant Trogon, Pale-billed Woodpecker, Northern Beardless-Tyrannulet,

Bright-rumped Attila, Nutting's Flycatcher, Sulphur-bellied flycatcher, Rose-throated Becard, Golden Vireo, Yellow-green Vireo, Black-throated Magpie-Jay, Sinaloa Wren, Happy Wren, Black-capped Gnatcatcher, White-throated Robin, Blue Mockingbird, Tropical Parula, Fan-tailed Warbler, Yellow Grosbeak, Blue Bunting, Rustin-crowned Ground-Sparrow, Olive Sparrow, Rufous-winged Sparrow, Costa's Hummingbird, Harris's Hawk, Orange-fronted Parakeet, White-naped Swift, Golden-crowned Emerald, Violet-crowned Hummingbird, Citoline Trogon, Song Sparrow, Black-collared Hawk, Bare-throated Tiger-Heron, Tufted Flycatcher, Flammulated Flycatcher, Gray-collared Becard, Brown-backed Solitaire, White-throated Robin, Flame-colored Tanager, also see spreadsheet.

Breeding Ground BCRs:

- 9. Great Basin - GRVI
 - 16. Southern Rockies/Colorado Plateau - GRVI, BETH
 - 20. Edwards Plateau – BCVI, BEVI, PABU
 - 32. Coastal California – BEVI
 - 33. Sonoran/Mojave Deserts – VABU, BEVI, BETH, FSSP, ELOW, REEG
 - 34. Sierra Madre Occidental – GRVI, BEVI, VABU, BETH, ELOW
 - 35. Chihuahuan Desert – BCVI, BEVI, VABU, VABU, ELOW
 - 40. REEG
 - 42. REEG?
- RUHU BCRS? PAC COAST

Breeding Ground Joint Ventures:

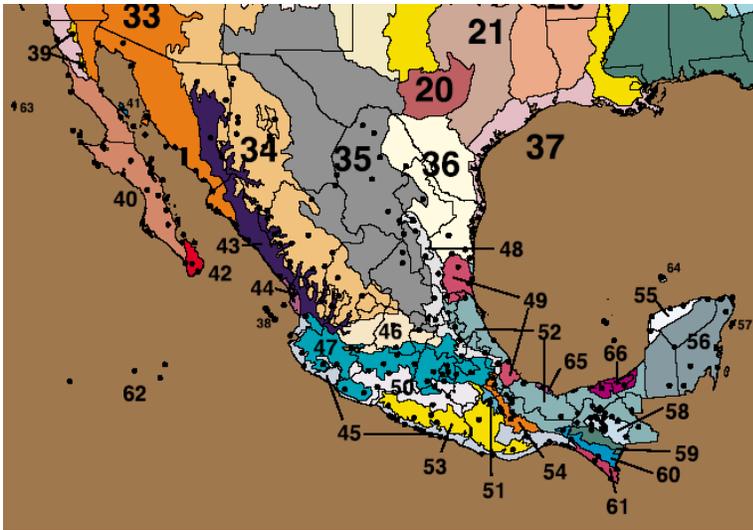
Intermountain West
Sonoran
Rio Grande
Oaks and Prairies

Non-breeding BCRs:

- 33 Sonoran and Mohave Deserts
- 43 Planicie Costera, Lomeríos y Cañones de Occidente
- 45 Planicie Costera y Lomeríos del Pacífico Sur
- 61 Planicie Costera del Sononusco

Non-breeding Ground Joint Ventures/Alianzas:

Marismas
Chiapas
Sonoran JV
Others



Brief description of the current situation and conservation need (i.e. an over view of why is this geography is in need of conservation attention for the targets identified).

The region is used for a variety of activities including urban/suburban and tourist development, agriculture, shrimp aquaculture, cattle ranching, logging, and mining among others. Indirect Impacts include: Soil erosion, habitat loss, and degradation is found to be caused by unsustainable grazing, land conversion/development, catastrophic fires, invasive/nonnative species, unsustainable timber harvesting, mining, and agriculture. Direct mortality is caused by excessive use of some agrochemicals and other pollutants in agriculture, shrimp farming, and mining. Also capture and sale of parrots, Painted Buntings, and other song bird species.

Private land conservation programs are important conservation tools that are currently being used. There is also a need to increase the research, monitoring, and environmental education programs. Ornithological studies are needed to document the area's biodiversity and inform implementation of conservation actions. The primary conservation actions needed include: increasing the amount of land in conservation programs and Natural Protected Areas, promoting ecotourism and conservation education, and diversifying local economies in rural areas.

Major prior conservation plans or other key documents this CBP is built upon (citation listed in appendix).

1. Sonoran Joint Venture Bird Conservation Plan
2. Oaks and Prairies Joint Venture plans
3. Intermountain West Joint Venture plans

4. Arizona Game and Fish Department Wildlife Action Plan
5. Chihuahuan Desert plans
6. Rio Grande Joint Venture Conservation Plans
7. others

Goal Identification for Conservation Targets:

(Conservation targets = those elements of biodiversity that the Conservation Business Plan intends to focus on and protect. They can be a species, a habitat or ecological system, or an ecological process. Start with a list of the most critical birds of concern for the linked geographical areas covered, and add other species, habitats or ecological functions if the team feels it appropriate.

A formal goal must be established for each Conservation Target. Begin with conservation goals that have been established in prior PIF Plans (e.g. the 2004 PIF North American Landbird Conservation Plan) or by various working groups. A conservation goal is a formal statement detailing the desired future condition of the target. The goal should be quantitative, time-limited, impact-oriented, specific and linked to the target. Generally it describes the long-term status for the target that is desired: "The goal for the Golden-winged Warbler is to increase its current population by 50% by 2050." If possible, the team should identify secondary goals related to the target's primary conservation goal, for example: "Increase the amount of early successional breeding habitat for Golden-winged Warbler from two million acres to three million acres by 2050".

(Section length = approximately 2 pages. Begin with population goals established by prior PIF and working group plans. Draft to be filled out prior to PIF V meeting.)

Species	PIF Plan target	PIF V Objective
Reddish Egret	Not given	To be decided on at conference
Elf Owl	Maintain/Increase	
Rufous Hummingbird	Double	
Five-striped Sparrow	Increase by 50%	
Bendire's Thrasher	Double	
Black-capped Vireo	Double	
Varied Bunting	Increase by 50%	
Painted Bunting	Increase by 50%	
Gray Vireo	Maintain	

Bell's Vireo	Double	
--------------	--------	--

List of specific threats:

List of the key threats that affect the conservation targets. Identify the sources of those threats (e.g. water pollution from unregulated housing development and poor sewage treatment) and how they impact the target or its viability (are they negatively affecting reproductive success, survivorship, or simply the number of individuals that the geographic area can support, i.e. carrying capacity?) If possible, select and identify a small number of priority threats (3-6) that the Conservation Business Plan will focus on. Threats should be considered through the full annual life cycle scale of the given target species – wintering, breeding and transit.*

We will use the Open Standards nomenclature for the threats analysis (see the primary categories across the top of the table). During the conference we will further define each threat as specifically as possible. Strategies and projects can only be designed around specific threats.

Species	Urbani- zation	Agri- culture	Live- stock	Energy & Transp or- tation	Logging/ Wood Harvest	Ecosyste m Modifi- cation	Conta mi- nants & Exotics	Climate Change	Direct disturb ance or take
Gray Vireo			x	x				x	
Bendire's Thrasher			x	?					
Five-striped Sparrow		?	x			? Fire			
Elf Owl	x	x	x			x fire			
Varied Bunting		?	x			x			
Black-capped Vireo		?			x	x			
Painted Bunting		?	x			x			x
Reddish Egret	x tourist	x aqua			x	x	X	?	x
Rufous Hummingbird	x	?				x		?	
Bell's Vireo	x		x			x		?	

Some of the specific threats that have been identified (by the SJV) are: (double check against Salafski's threat nomenclature)

Habitat Loss/Conversion –

Conversion to Urban/suburban/exurban

Conversion to agriculture

Water regime changes – extraction, diversion, flood control, drainage

Energy development (wind, transmission lines, water impoundments, solar)

Mining – surface, subsurface, sand and gravel

Development due to tourism

Habitat Disturbance -

Native or non-native vegetative encroachment (invasive native or non-native plant communities)

Water regime changes – extraction, diversion, flood control, drainage

Disruption of Natural cycles or processes –

Fire: Lack of fire, catastrophic fire, and lack of knowledge about fire history

Climate change

Patch size

Fragmentation

Connectivity/migration

Small population size dynamics

Water regime changes – extraction, diversion, flood control, drainage

Disease/Pests – tree diseases, cowbird brood parasitism

Native or non-native animal encroachment or overabundance (invasive natives or non-natives)

Soil and geology – erosion, silting

Unsustainable use of resources –

Unsustainable grazing patterns (frequency and intensity)

Unsustainable recreational use – Off Highway Vehicle damage

Unsustainable timber harvest

Direct Disturbance of Birds –

Energy development (wind, transmission lines, water impoundments, solar)

Over fishing

Pollution - Oil spills, sewage, chemical

Disturbance at nests during nesting season (beaches, sea bird colonies, other)

Direct take of birds –

Over-hunting, egg collection, nest destruction, pet trade

Energy development (wind, transmission lines, water impoundments, solar)

Pollution - Oil spills, sewage, chemical

Prescribed Actions by theme:

The Breakout Group Leaders will need to organize their Project Matrix, described below, to allow fruitful discussion during the PIF V meeting.

We suggest that you set up your Project Matrix by listing each of the priority threats that the group will discuss by each appropriate Annual Life Cycle stage (wintering, breeding, transit). For each of the priority threats, begin to develop general strategies and opportunities to address them: What are viable solutions to each priority threat or opportunity?; how can it be implemented, what are the costs? What are the objectives for each strategy? Each threat can have multiple objectives, multiple strategies to achieve them, and multiple projects that can be implemented to alleviate the threat. At the beginning, the Project Matrix may look something like this:

Priority threat 1 X wintering ...

Priority threat 2 X wintering

Priority threat 3 X wintering

Priority threat 1 X breeding

Priority threat 2 X breeding

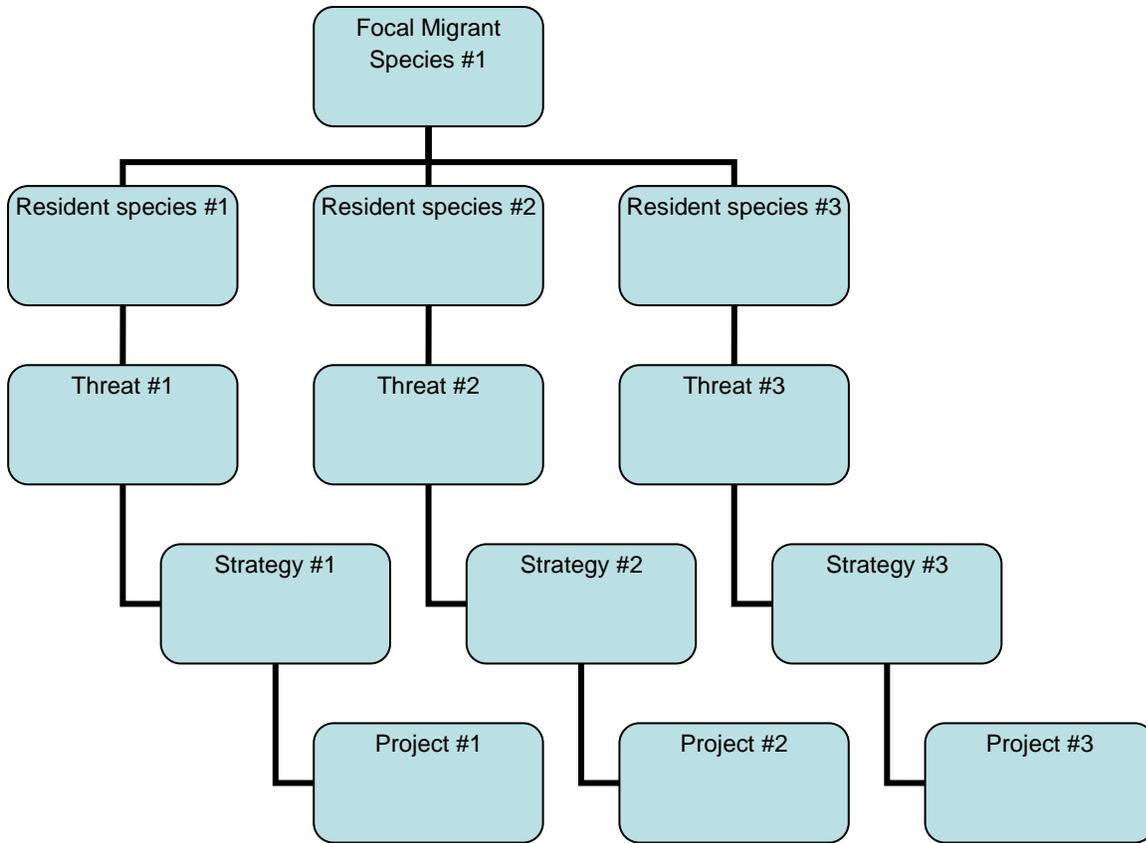
Priority threat 4 X breeding

Priority threat 2 X transit

Priority threat 4 X transit

The results from breakout discussions will be fed into the Project Matrix, found below. For each threat, identify strategies that should be pursued, and then begin to develop a list of projects and activities that can be undertaken to alleviate each threat. Fill in the Project Matrix for each project. List the measureable results expected. Describe the time period. Describe the costs for each project/action and, if known, potential funding sources(?) What are the risks? Ensure that the Full Annual Life Cycle is considered for each threat, as appropriate (wintering, breeding, transit).

For each Focal Migrant Species we will identify 1 or more priority Resident Species that have the same habitat and thus the same threats. We will then identify that Threat (there will undoubtedly be more than 1 threat), discuss possible strategies, and then devise at least one Project to address that Threat. Species, threats, and strategies might be interconnected, so this is a simplistic flow chart of our process.



This Project Worksheet will be filled out for each Project during the conference. We will use the Open Standards process to evaluate the viability of our projects.

Project Worksheet

Key Threat (use as the organizing principle): _____

Conservation Targets (migrants, residents): _____

Annual Cycle Stage Targeted (Wintering, Breeding, Transit): _____

What is the overall objective? _____

What type of work (see themes below) and describe the strategy that will be used? _____

Project Name: _____

Project Activity: _____

Will it be in a focal area (AICA or ANP)? And name? _____

What will be the measurable results or deliverables of the activity? _____

What will be the long term results? _____

Timeframe: _____

Cost of project (each year and total): _____

What are some potential funding sources? _____

How will the project be evaluated? _____

Project viability scoring:

Project feasibility (can it be accomplished as planned): High-3, Medium-2, Low-1

Project effectiveness (will it have the desired results): High-3, Medium-2, Low-1

Project opportunity (is there a current opening to take action): High-3, Medium-2, Low-1

Themes to be used to fill out question above:

- Species-specific projects: how can we meet the overall population goal? The overall habitat goal? The desired habitat conditions and BMPs to get there? Key focal areas identified? Management actions prescribed for what areas? Conservation and protections identified for what areas? Ongoing guard presence needed for what areas?
- Habitat projects: Is it being diminished or degraded in a way that makes it unable to support target species? Is it affecting overall carrying capacity, or a key vital rate, or both?
- Direct land protection projects: What lands are identified for protection? Public decree? Where is increased onsite protection or management needed?
- Working landscape projects: how do we influence local communities? Promote bird-friendly uses of the land? In what specific areas? What industries are impacting habitat and focal species where engagement could lead to more sustainable practices?
- Policy/regulatory projects: To what extent are existing or potential future laws, regulations, policies, or judicial decisions detrimental?
- Socio – Economic/Community engagement projects: To what extent are social factors and considerations detrimental? To what extent are current or anticipated economic factors and conditions detrimental? How do we influence and engage local communities to meet their needs and the needs of the conservation targets?
- Knowledge and Evaluation projects: To what extent is our scientific understanding of the threats and/or necessary conservation actions insufficient?