The Mexican Perspective on Hummingbird Conservation and the Great Challenges of the 21st Century

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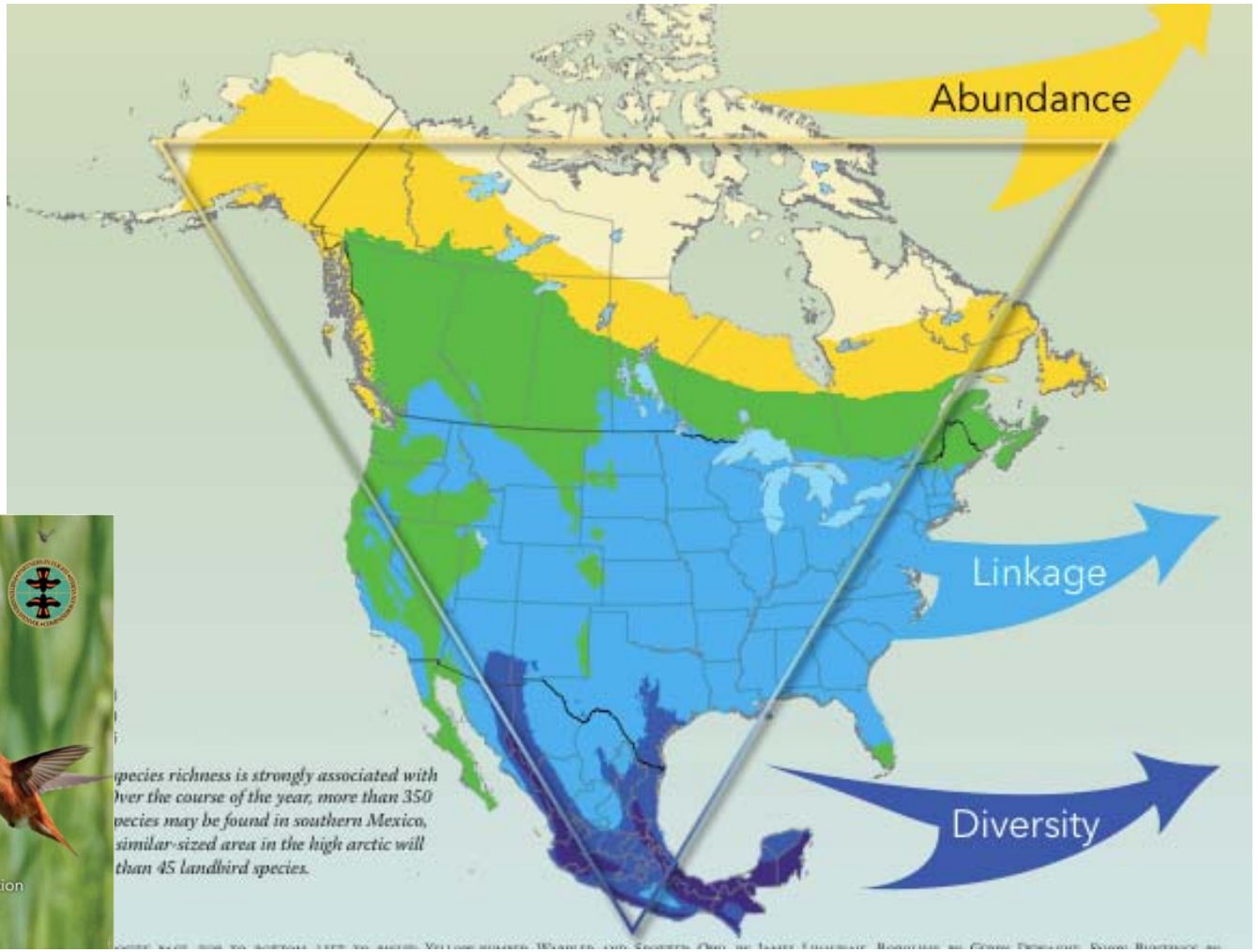
México: Tropical and Temperate, Great Bird Diversity in North America



Hummingbirds

- 57 species in North America
- 57 species in México
- 15-17 USA
- 5 Canada
- 30% of the Mexican Hummingbirds Migrate: breed in USA and Canada and winter in Mexico

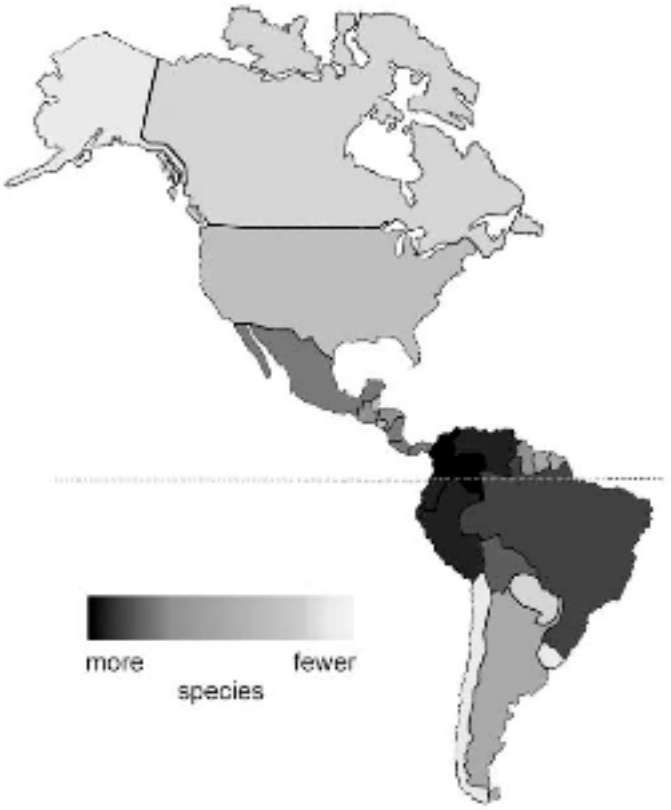
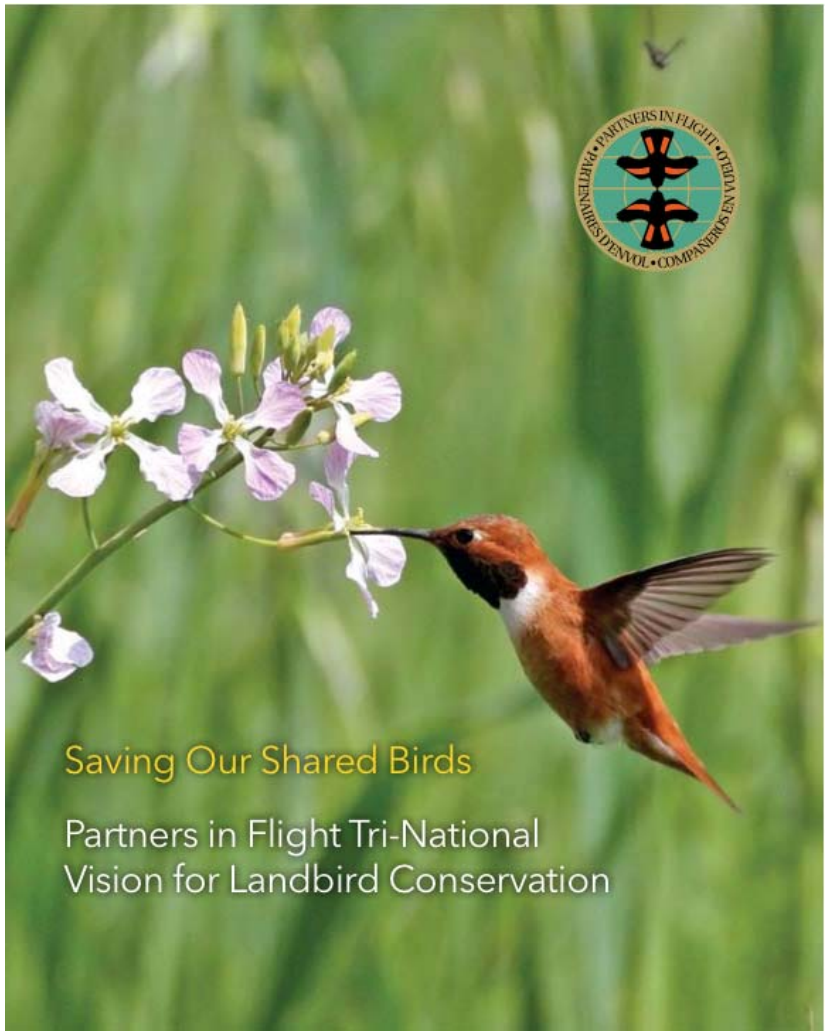


Figure 5—Map of hummingbird richness for North, Central, and South America by country.

Saving our Shared Birds: a Trinational Vision (2010)

- This is the first complete and comprehensive conservation assessment of landbird in North America.
- Highlights the importance of the links and of trinational collaboration in North America



Promoted by Partners in Flight

- As a collaborative effort of many authors and institutions from USA, Canada and Mexico

Trinational Strategy for bird conservation

Shared Birds, Shared Responsibility

More than 200 species comprising 83% of individual landbirds rely on habitats in all three countries. Tropical forests in Mexico provide critical nonbreeding habitat for close to 100 substantially shared migratory species. These same forests provide year-round habitats for 70% of species that are of high tri-national concern. Migrating birds depend on high quality habitat for safe travel and refuelling stopovers between distant breeding and wintering homes. The clear linkages among birds and habitats compel us to work internationally, to reinforce partnerships, and to develop new mechanisms for conserving both migrants and residents.

A Call to Tri-National Action

We can achieve our goals to protect, restore, and enhance populations and habitats of North America's birds, but the window of opportunity is rapidly closing. We recommend six primary actions.

1. Protect and Recover Species at Greatest Risk

A strong network of protected areas, especially in tropical and pine-oak forests in Mexico (see map), is necessary to support landbirds of high tri-national concern. Full implementation of national endangered species laws must ensure sufficient critical habitat for recovery of listed species.

2. Conserve Habitats and Ecosystem Functions

Relatively small policy changes can have dramatic cumulative benefits to birds in many habitats. Sustainable agriculture, forestry, and urban planning can protect core areas of habitat in working landscapes. Innovative incentives to communities and businesses are essential to support the transition to more sustainable economies.

3. Reduce Bird Mortality

Providing alternative livelihoods can reduce unsustainable hunting and trapping for the cage-bird trade. Simple measures can effectively reduce other sources of mortality, such as collisions with windows and tall structures, pesticide poisoning, and predation by domestic cats.

4. Expand Our Knowledge Base for Conservation

Effective conservation programs require an increased understanding of distribution patterns, seasonal connectivity between locations, factors limiting bird survival and productivity throughout the year, and the human dimensions of bird conservation. We also need to better understand the response of populations to management practices and the cumulative effects of human-caused mortality.

5. Engage People in Conservation Action

A more engaged human society will be necessary to conserve habitats and reverse bird population declines. Shared products and programs can increase participation by bird enthusiasts in citizen science and promote economic gain for people who rely on birds or bird habitats for their livelihoods.

6. Increase the Power of International Partnerships

Regional Alliances, international Joint Ventures, and community-based partnerships represent successful models for communication, international collaboration, and expanded funding for conservation of shared species. New mechanisms for engaging business, industry, and nongovernmental sectors will be necessary to find economically viable conservation solutions.

Photos: Maroon-fronted Parrot by René Valdéz, Golden-winged Warbler and Ocellated Turkey by Gerry Dewaghe Tufted Jay by Eduardo Iñigo-Elias, Tody Motmot by Gerry Dewaghe, Harpy Eagle by Kenneth V. Rosenberg, Pink-headed Warbler by France Dewaghe, Hermit Warbler and Townsend's Warbler by Brian Sullivan, Golden-cheeked Warbler by David Cree, Horned Guan by Fulvio Eccardi

Conserving Migrants While Conserving Residents

Many migrants from Canada and the United States depend on the same tropical highland forests in southern Mexico as highly threatened residents. Left to right: Pink-headed Warbler, Hermit Warbler, Townsend's Warbler, Golden-cheeked Warbler, Horned Guan.

The Power of Linking People through migrating, and so, shared birds

Selasphorus rufus

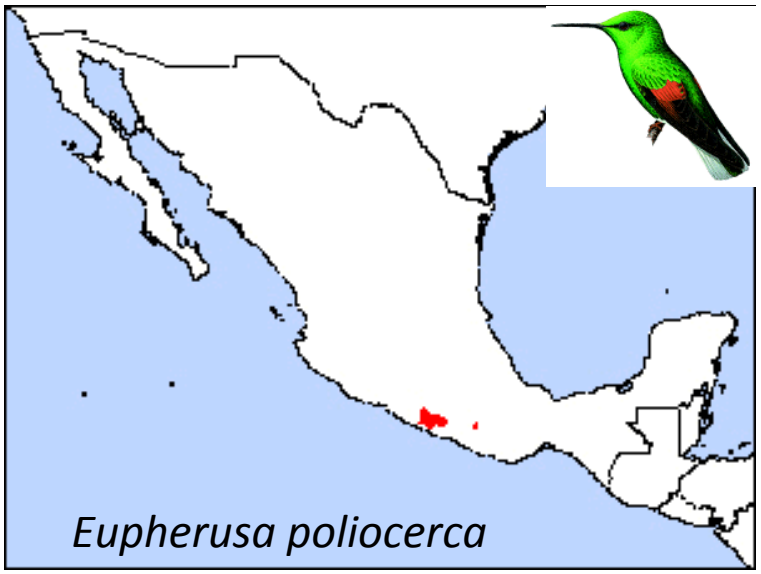
To preserve this bird we HAVE to work together, to ensure the presence of BOTH breeding and wintering habitats

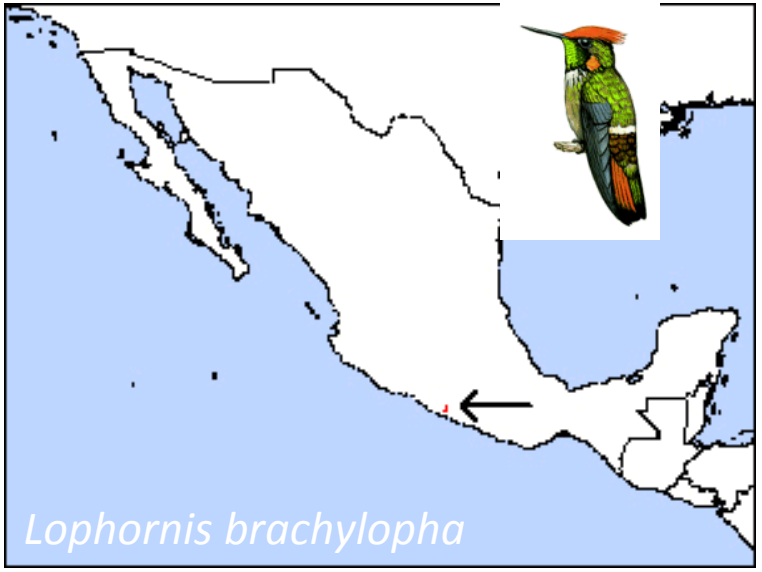
Threatened species

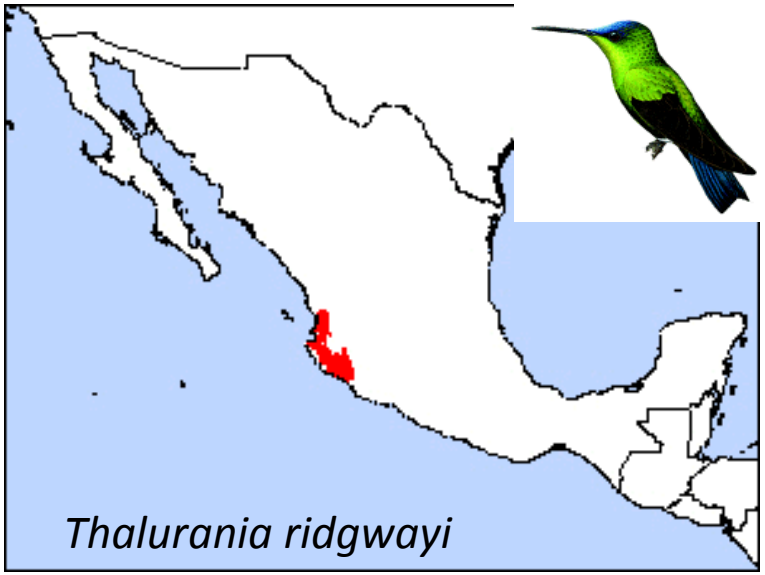
Species	IUCN	NOM (2006)	Pob	Trend	Range km²	Habitat	Score
Lophornis brachylophus	Cr	P	<50,000	↓15-49%	50	Mesófilo y BTC	19
Doricha eliza	Nt	P	<50,000	?	9500	BTC	18
Eupherusa cyanophrys	En	A (P)	<50,000	↓	4100	Mesófilo	18
Eupherusa poliocerca	Vu	A	<50,000	↓15-49%	4000	Mesófilo	18
Thalurania ridgwayi	Vu	Pr (A)	<50,000	↓15-49%	14600	BTsC	18

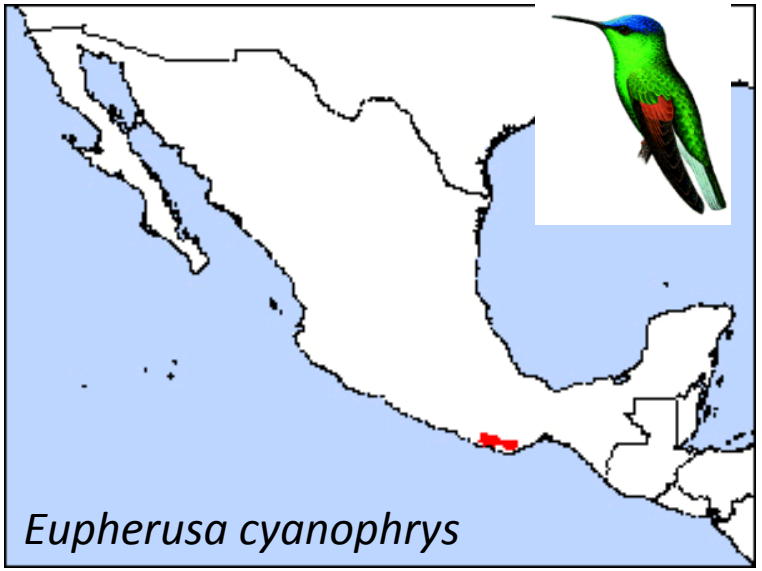
Avesmex/NABCI

Major threat: small range







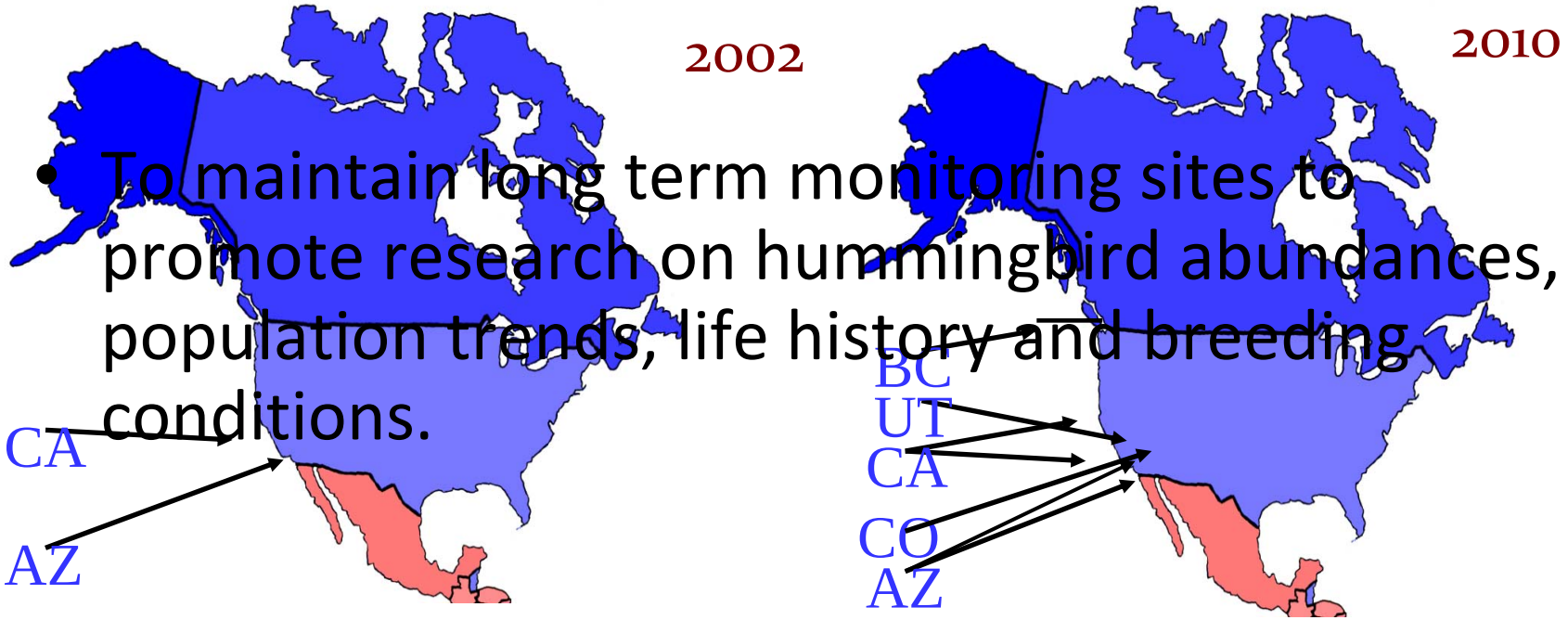


What do we need to preserve them?

- Information: basic natural history and ecological information about breeding foraging, distribution, population status and ecological trends.
- Comunicating and sharing: develop a strategy to make information available to researchers, students, educators and sciticents.

Research

- Monitoring permanent sites: demography and trends
- As hummingbirds eat nectar they get dusted with pollen, collecting pollen while monitoring can tell us a lot about phenology of the interaction and help to document changes dur to climate change.



- To maintain long term monitoring sites to promote research on hummingbird abundances, population trends, life history and breeding conditions.

Hummingbird Banding and phenological stations in México

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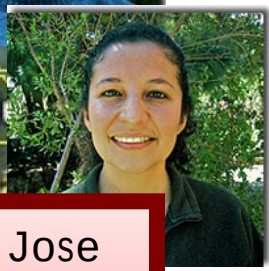

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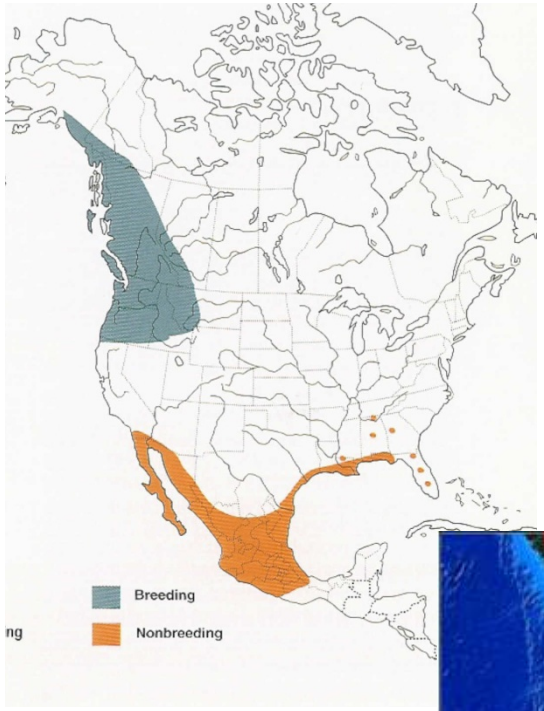
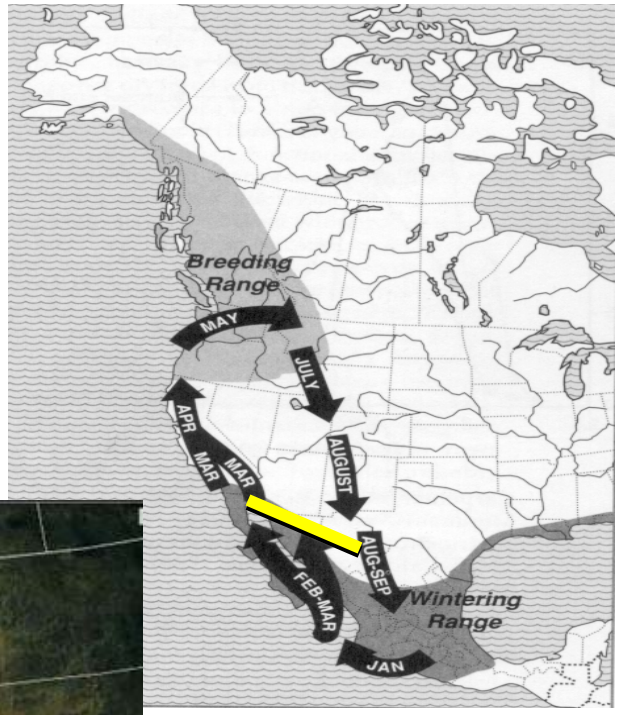
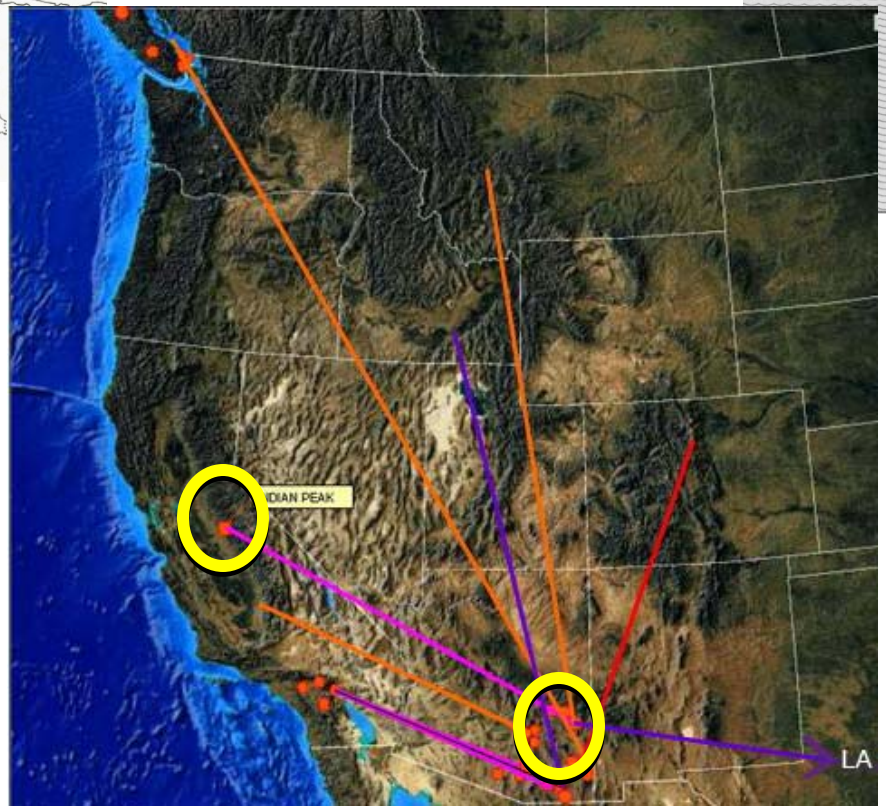
ECOSUR

Migration
S. rufus







Recaptures (lines that ends in dots)

Migration routes previously unknown

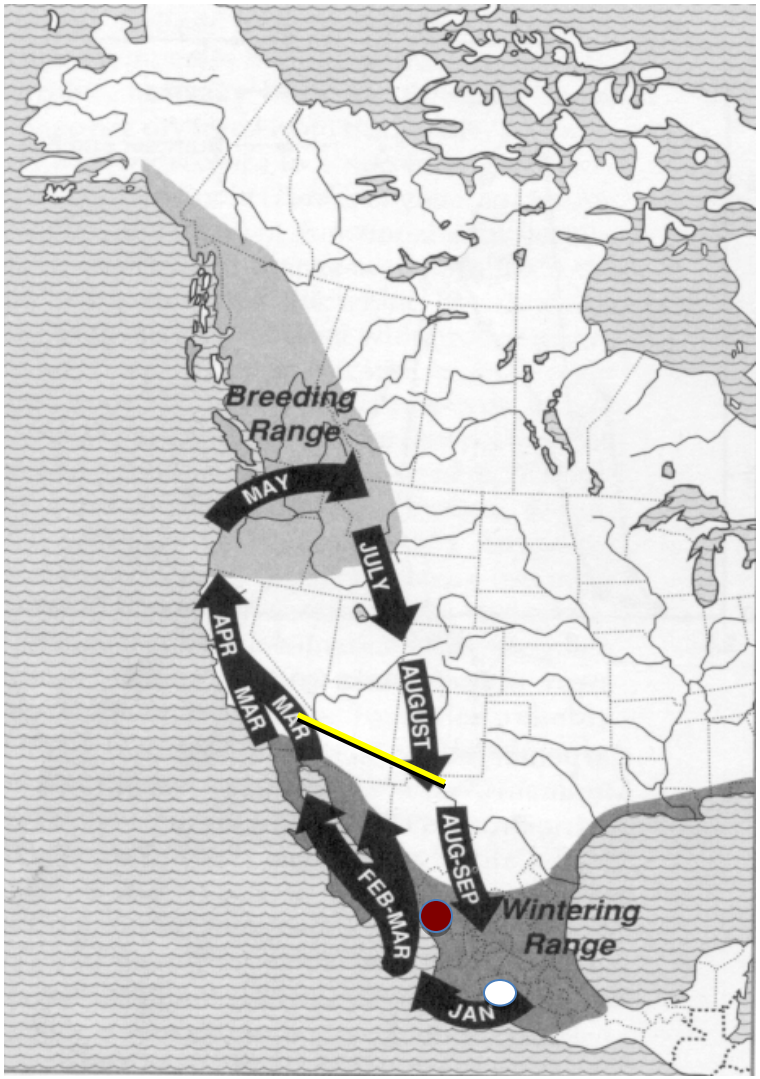
Some preliminar Mexican Results

El Palmito Sinaloa

2009-2010: We registered *S. rufus* from December 12 to March

From October until March

This winter more intensive field work



Investigating what hummingbirds need to survive, successfully reproduce, and maintain thriving populations

Western Hummingbird Partnership

The mission of the WHP is to work together to maintain thriving hummingbird populations and their habitats for present and future generations.

The value of partnerships

- Information generated through research along the network can help to:

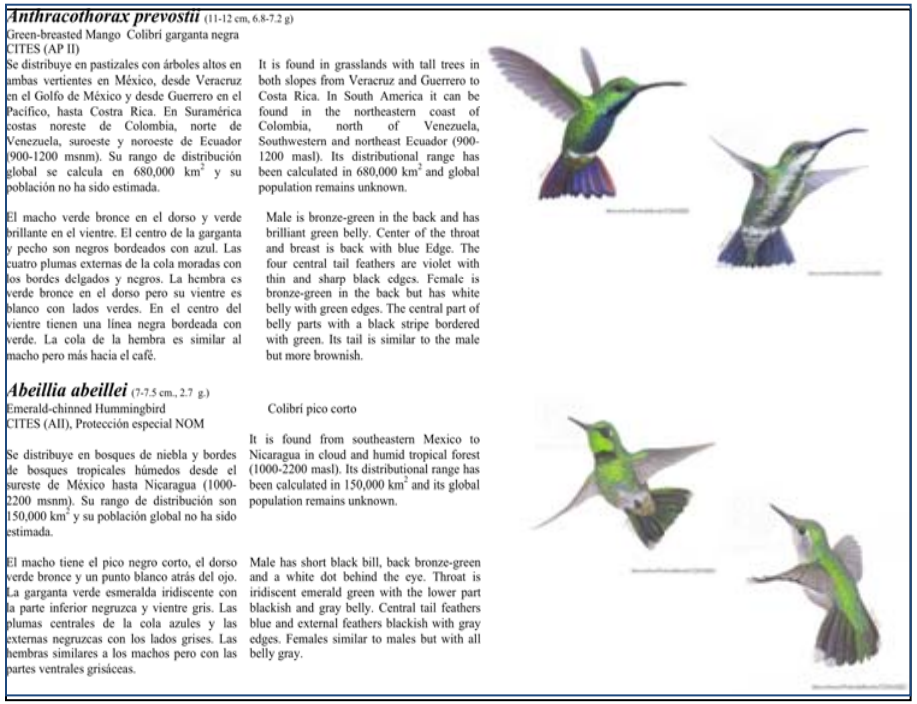
a) Understand population trends

b) Relate abundances and phenology of birds and plants used

c) Model possible results for populations living under fragmentation habitats or climate change for example

NABCI/CONABIO

- A Field Guide of the Hummingbirds of North America.



Anthracothorax prevostii (11-12 cm, 6.8-7.2 g)
Green-breasted Mango Colibrí garganta negra
CITES (AP II)

Se distribuye en pastizales con árboles altos en ambas vertientes en México, desde Veracruz en el Golfo de México y desde Guerrero en el Pacífico, hasta Costra Rica. En Suramérica costas noreste de Colombia, norte de Venezuela, suroeste y noroeste de Ecuador (900-1200 msnm). Su rango de distribución global se calcula en 680,000 km^2 y su población no ha sido estimada.

It is found in grasslands with tall trees in both slopes from Veracruz and Guerrero to Costa Rica. In South America it can be found in the northeastern coast of Colombia, north of Venezuela, Southwestern and northeast Ecuador (900-1200 masl). Its distributional range has been calculated in 680,000 km^2 and global population remains unknown.

El macho verde bronce en el dorso y verde brillante en el vientre. El centro de la garganta y pecho son negros bordeados con azul. Las cuatro plumas externas de la cola moradas con los bordes delgados y negros. La hembra es verde bronce en el dorso pero su vientre es blanco con lados verdes. En el centro del vientre tienen una línea negra bordeada con verde. La cola de la hembra es similar al macho pero más hacia el café.

Male is bronze-green in the back and has brilliant green belly. Center of the throat and breast is back with blue Edge. The four central tail feathers are violet with thin and sharp black edges. Female is bronze-green in the back but has white belly with green edges. The central part of belly parts with a black stripe bordered with green. Its tail is similar to the male but more brownish.

Abeillia abeillei (7-7.5 cm., 2.7 g.)
Emerald-chinned Hummingbird
CITES (AII), Protección especial NOM

Colibrí pico corto

Se distribuye en bosques de niebla y bordes de bosques tropicales húmedos desde el sureste de México hasta Nicaragua (1000-2200 msnm). Su rango de distribución son 150,000 km^2 y su población global no ha sido estimada.

It is found from southeastern Mexico to Nicaragua in cloud and humid tropical forest (1000-2200 masl). Its distributional range has been calculated in 150,000 km^2 and its global population remains unknown.

El macho tiene el pico negro corto, el dorso verde bronce y un punto blanco atrás del ojo. La garganta verde esmeralda iridiscente con la parte inferior negruzca y vientre gris. Las plumas centrales de la cola azules y las externas negruzcas con los lados grises. Las hembras similares a los machos pero con las partes ventrales grisáceas.

Male has short black bill, back bronze-green and a white dot behind the eye. Throat is iridiscent emerald green with the lower part blackish and gray belly. Central tail feathers blue and external feathers blackish with gray edges. Females similar to males but with all belly gray.

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Comisión Nacional para el Conocimiento y Uso de la Biodiversidad
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All this information…

- Is needed to better propose conservation measures that promote hummingbird conservation,
- Working as a country can not ensure bird conservation and so
- Working together is the a better solution that can make us stronger when spreading the word of the need to protect pollinators.


Thank you