Potential Aplomado Falcon (*Falcon femoralis*) Habitat in Mexico

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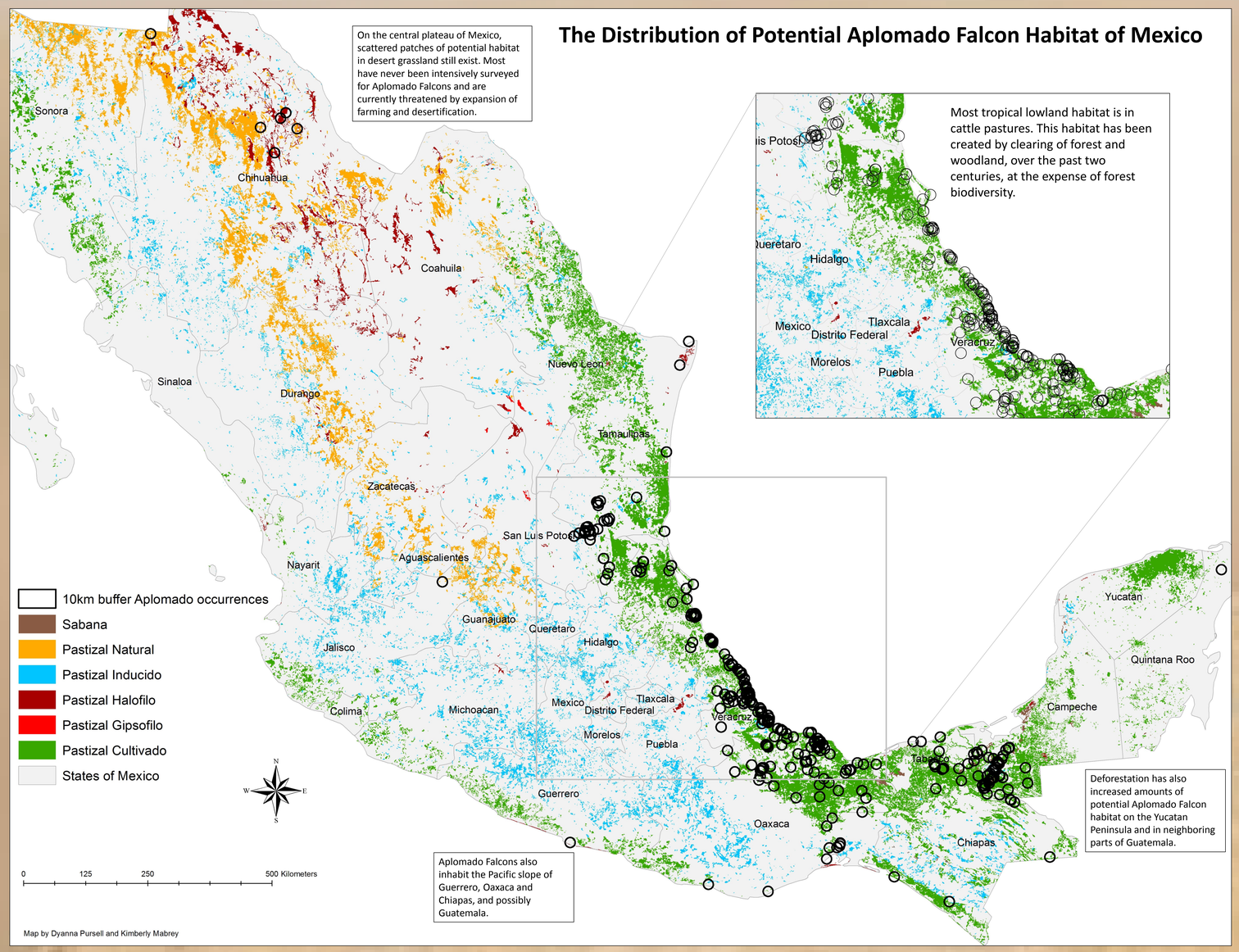
Despite the Endangered Species Ranking of the Northern Aplomado Falcon, its status and distribution has still not been well documented. Since the 19th century Aplomado Falcons have been regularly encountered in the tropical lowlands of eastern and southern Mexico. Elsewhere in Mexico, lack of historical records and systematic surveys make it difficult to determine past or current distributions and populations. This presentation uses available locality records and land use/land cover maps to estimate the spatial distribution of select vegetation types known to be inhabited by this falcon. Results of this preliminary attempt to define potential habitat (pastures and savannas of eastern Mexico and the desert grasslands of the central plateau) demonstrate the urgent need for better land cover data and more comprehensive surveys for the Aplomado Falcon.



State	Vegetation Type	Potential Habitat within 10km Buffer (km2)	% of Potential Habitat within 10km Buffer by State	% of Type within State
Campeche	Pastizal Cultivado	545.18	16.71%	77.83%
	Pastizal Halofilo	2.18	0.07%	0.31%
	Sabana	153.12	4.69%	21.86%
State Total		**700.48**		
Chiapas	Pastizal Cultivado	2,340.32	25.58%	94.46%
	Pastizal Inducido	49.56	0.54%	2.00%
	Sabana	87.69	0.96%	3.54%
State Total		**2,477.58**		
Chihuahua	Pastizal Halofilo	549.49	29.98%	54.47%
	Pastizal Inducido	7.61	0.41%	0.75%
	Pastizal Natural	451.61	24.64%	44.77%
State Total		**1,008.70**		
Guerrero	Pastizal Cultivado	5.80	2.42%	66.22%
	Pastizal Halofilo	2.96	1.23%	33.81%
State Total		**8.76**		
Jalisco	Pastizal Natural	24.68	7.86%	100.00%
State Total				
Oaxaca	Pastizal Cultivado	983.04	14.29%	97.21%
	Pastizal Halofilo	1.75	0.03%	0.17%
	Pastizal Inducido	26.47	0.38%	2.62%
State Total		**1,011.26**		
Puebla	Pastizal Cultivado	33.19	18.18%	100.00%
State Total		**33.19**		
Quintana Roo	Pastizal Cultivado	1.56	0.50%	100.00%
State Total		**1.56**		
San Luis Potosi	Pastizal Cultivado	381.64	7.33%	83.05%
	Pastizal Inducido	77.89	1.50%	16.95%
State Total		**459.53**		
Tabasco	Pastizal Cultivado	2,536.68	33.44%	95.35%
	Pastizal Halofilo	1.37	0.02%	0.05%
	Pastizal Inducido	34.99	0.46%	1.32%
	Sabana	87.30	1.15%	3.28%
State Total		**2,660.34**		
Tamaulipas	Pastizal Cultivado	279.05	5.79%	94.04%
	Pastizal Halofilo	3.60	0.07%	1.21%
	Pastizal Inducido	14.07	0.29%	4.74%
State Total		**296.72**		
Veracruz	Pastizal Cultivado	8,378.89	18.44%	98.80%
	Pastizal Halofilo	3.73	0.01%	0.04%
	Pastizal Inducido	97.61	0.21%	1.15%
	Sabana	0.76	0.00%	0.01%
State Total		**8,480.98**		
Grand Total Potential Habitat		**17,163.78**		

Conclusions

1) Dominant cover types within 10 km of 313 Aplomado Falcon collection and observation locations were as follows: (A) 96% open to semi-open cattle pasture (*Pastizal Cultivado*) and <1% natural savanna (*Sabana*) at tropical sites and (B) 54% halophytic grasslands (*Pastizal Halofilo*) and 45% desert grassland (*Pastizal Natural*) in Chihuahuan Desert locations.
2) In tropical lowlands of e. and s. Mexico, 98% (191,479 km^2) of potential habitat (in patches > 0.5 km^2) is cattle pasture created by clearing of forests and woodlands; <1% (1,714 km^2) is natural savanna.
3) On the central plateau 80% (70,927 km^2) of potential Aplomado Falcon habitat (in patches > 0.5 km^2) is desert grassland; 20% (17,228 km^2) is halophytic grasslands.
4) Potential tropical habitat could support 7,641 - 62,895 Aplomado Falcon territories within habitat patches > 5 km^2.
5) Potential desert grassland habitat could support 3,630 - 29,876 Aplomado Falcon territories within habitat patches > 5 km^2.
6) Deforestation continues to create habitat in e. Mexico, but is offset somewhat by conversion of cattle pasture and savannas to croplands for food and biofuel production.
7) Expansion of dryland agriculture is rapidly destroying habitat in central Mexico, and this region deserves the focus of future conservation efforts with species.

Data Sources: Dean P. Keddy-Hector, ebird.org, ornisnet.org, inegi.org.mx

Photo Sources: peregrinefund.org, birdsfreewallpaper99.blogspot.nl, zoochat.com, aplomadofalcons.com, audobonmagazine.org, MoRAP

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