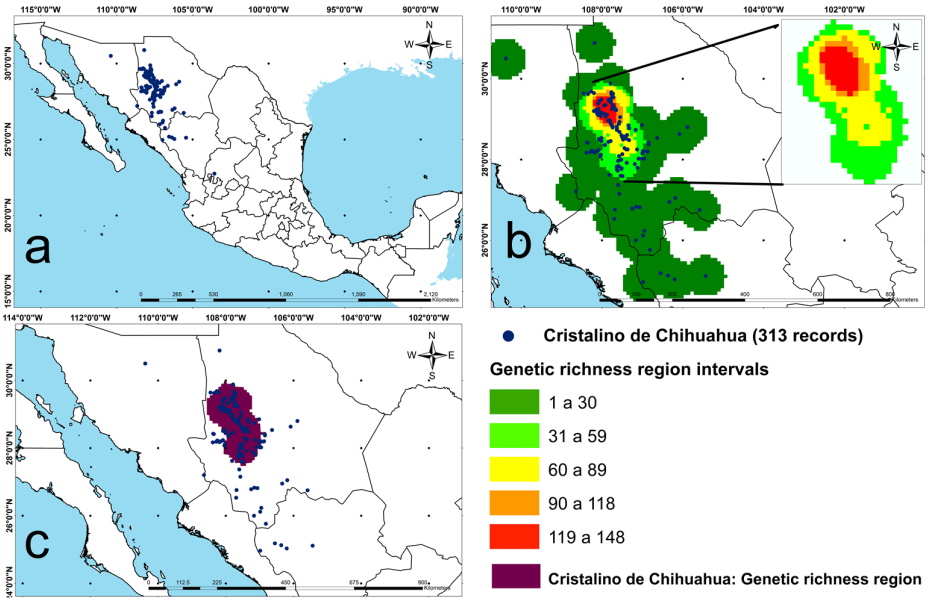

Figure S1. Delimitation of richness regions for races with more than 30 collections. Example: Cristalino de Chihuahua race. a) Geographic distribution of collections. b) Genetic richness region obtained through DivaGis. c) Genetic richness region that considers the four class intervals with highest concentration of collections (31 to 59, 60 to 89, 90 to 118 and 119 to 148).

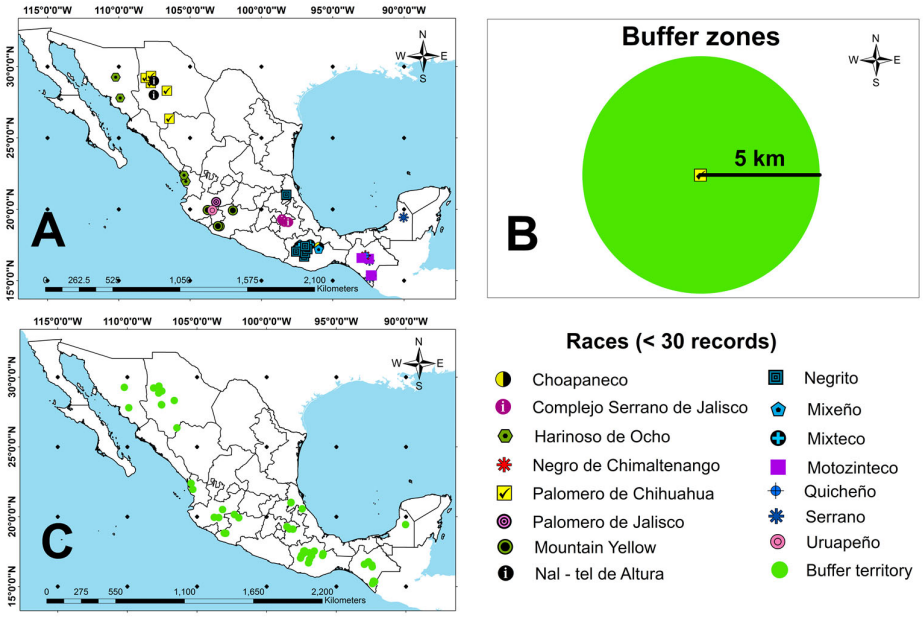

Figure S2. Spatial delimitation of the buffer zones for each collection of the races with less than 30 records. a) Geographic distribution of the collections of races with less than 30 records. b) Spatial representation of a buffer zone of 5 km radius. C) Spatial representation of the buffer zones of 5 km radius for each collection of races with less than 30 records.

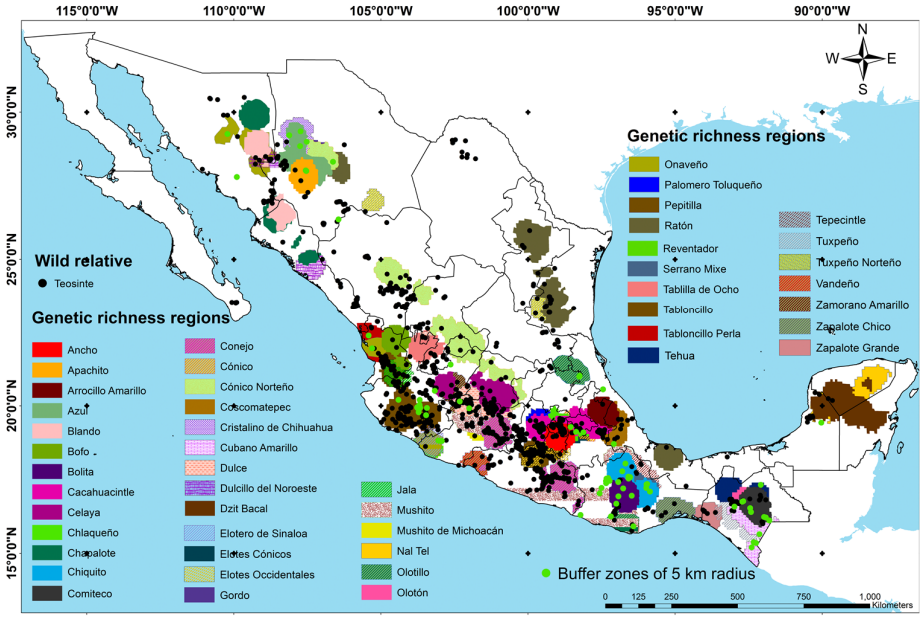

Figure S3. Spatial representation of the teosinte collections with the genetic richness regions of the 49 races with more than 30 collections and buffer zones of 5 km radius for the collections of the 15 races with less than 30 records.

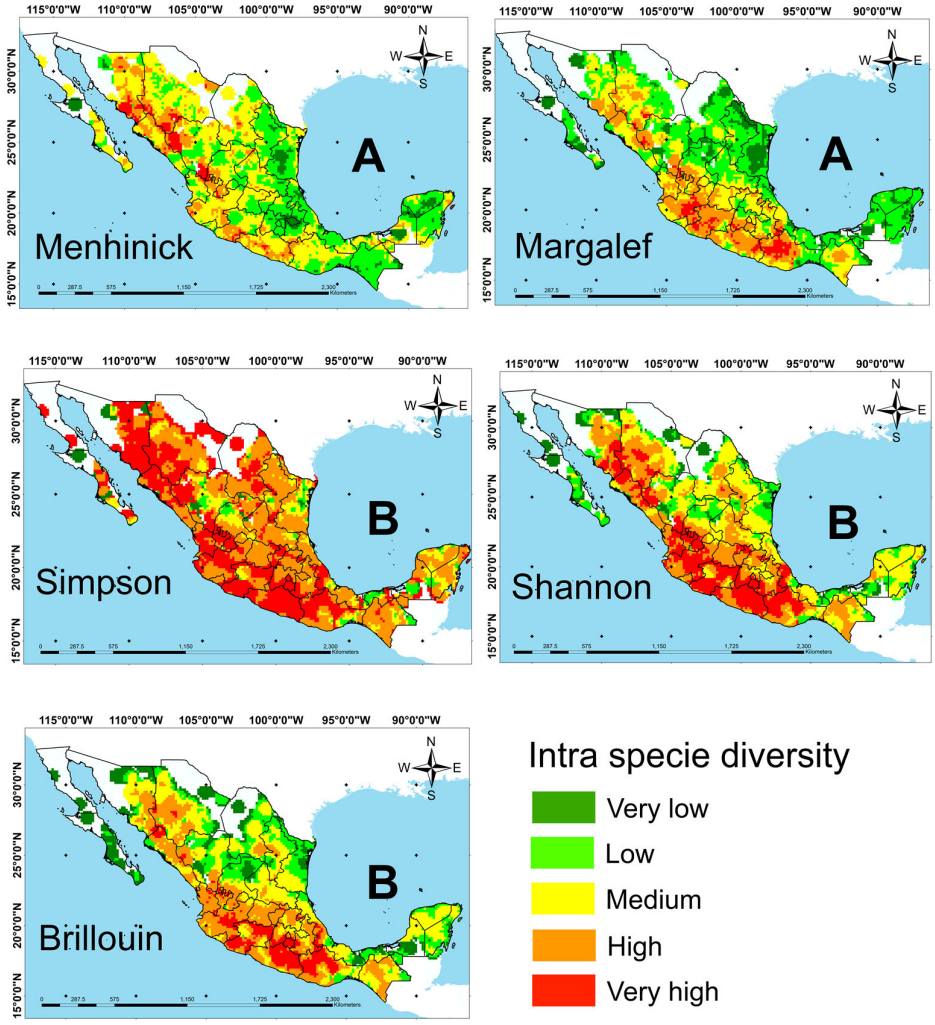

Figure S4. Spatial delimitation of specific richness indexes (A: Margalef and Menhinick) and structure indexes (B: Shannon, Brillouin and Simpson) for the geographic distribution of the 64 maize races cultivated in Mexico.

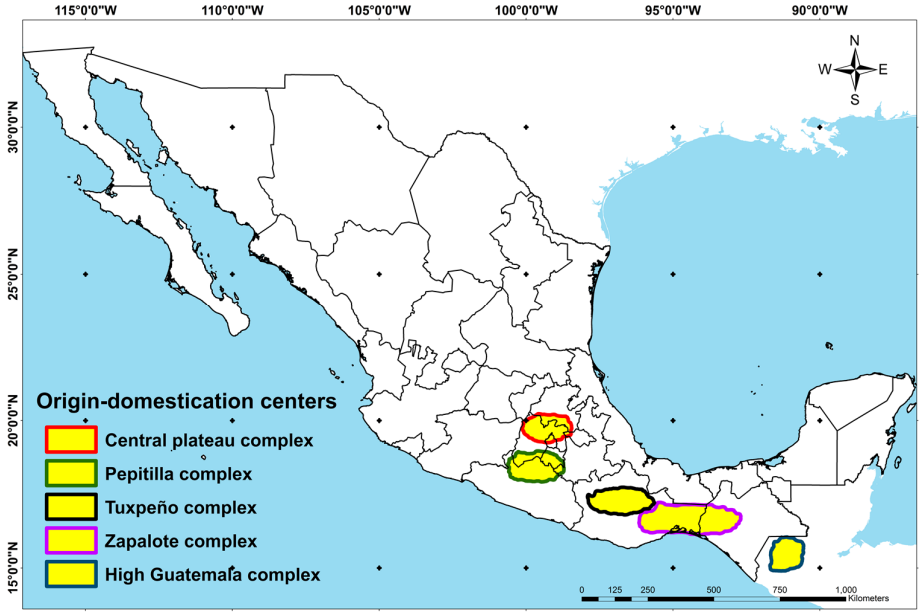

Figure S5. Spatial delimitation of the centers of origin and domestication of maize established by Kato in the book Origen y diversificación del maíz: una revisión analítica [38].

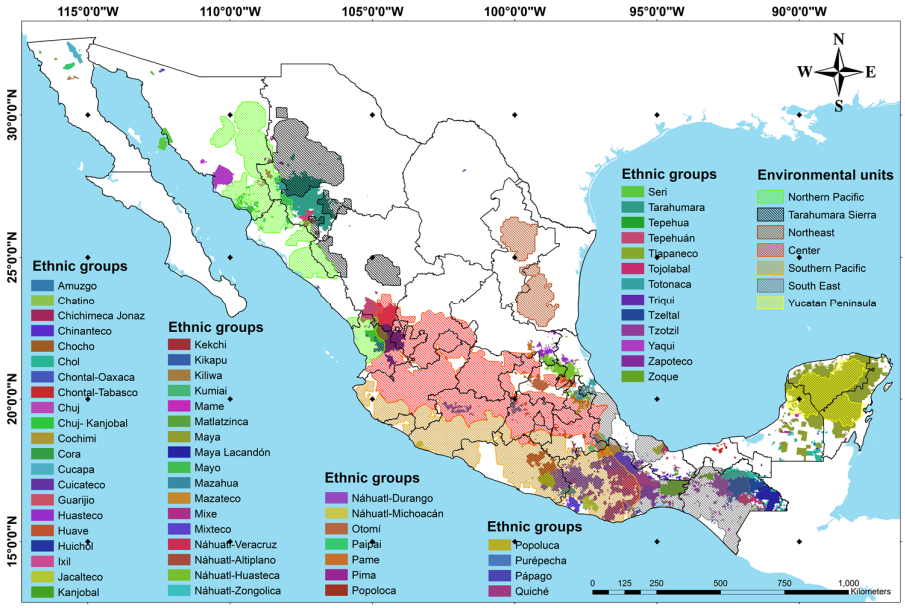

Figure S6. Spatial distribution of environmental units and ethnic groups in Mexico.

Table S1. Description of the principal grain and plant uses of the 64 native maize races cultivated in Mexico.

Uses	Description
Elote (A)	Tender ear of maize that is boiled and prepared warm with cheese, mayonnaise, lime and piquín chili pepper.
Esquite (B)	Grains from the ear fried in oil or boiled with árbol chili pepper, epazote and onion. They are served with salt, lime, piquín chili pepper, mayonnaise and cheese.
Nixtamal (C)	Process by which maize is cooked with water and live lime, then ground and used to make the nixtamal dough that is used for the preparation of different dishes.

Pozole (D)	It is a broth made from maize grains, to which chicken or pork meat is added as secondary ingredient.
Pozol (E)	Thick beverage based on cacao and maize that is consumed primarily in southern Mexico.
Tamal (F)	Food made from nixtamal dough filled with meats, vegetables, chili peppers, fruits, sauces and other ingredients. They are wrapped in plant leaves and cooked in water or vapor.
Tortilla (G)	Flat and circular food made from nixtamal dough that is cooked over low heat and eaten alone or filled with various ingredients.
Atole (H)	Sweet maize beverage in water that is cooked with moderate viscosity and served as hot as possible.
Pinole (I)	Toasted maize flour that is sweetened to be consumed as candy or else to prepare cold and hot beverages.
Tejuino (J)	Fermented maize beverage that is consumed mainly in northern Mexico.
Confectionery (K)	Elaboration of cookies, home-made bread and cakes based on sweet maize grains.
Fodder (L)	The maize plant serves as feed, mainly for ruminant animals, whether once the plant has dried or by chopping it and making ensilage with green plants. It is common for the maize grain to also be used as fodder.
Fuel (M)	In some rural regions in Mexico, the dry maize plant is a substitute for natural gas or tree firewood as fuel to generate fire that is used in food cooking.
Totomoxtle (N)	Dry, coarse and brittle leaves that wrap the ear of maize. Due to their resistance, they are used to wrap tamales.
Fertilizer (O)	The residues that remain on the maize plant once the grain and the plant are harvested are incorporated to the soil as organic matter.

Prepared by authors based on what was reported in [4,10]. A to K correspond to uses of the maize grain. L to O correspond to uses of the maize plant.

Table S2. Relationship of the principal maize races cultivated in each environmental unit with specific uses of grain and plant, and the ethnic groups associated territorially to the geographic distribution of maize races.

Environmental units	Principal maize races (% Records)		Uses*															Secondary maize races (% Records)		Ethnic groups
			Grain											Plant						
	Name	%	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Name	%	
North Pacific	Harinoso de Ocho	100.00	1		1	1								1	1			Bofo	18.92	Cora
	Chapalote	74.19	1	1							1		1	1				Tabloncillo	16.11	Guarijio
	Blando	70.45	1		1					1	1	1		1				Elotero de Sinaloa	14.29	Huichol
	Dulcillo del Noroeste	70.27	1	1							1			1						Mayo
	Onaveño	56.25	1		1			1	1	1	1			1	1	1				Pima
	Tabloncillo Perla	48.98	1		1	1			1	1				1	1	1				Tarahumara
	Reventador	43.33	1	1	1	1					1			1	1	1				Tepehuán
Tarahumara Sierras	Azul	93.94	1		1	1		1	1	1	1	1		1	1	1		Cónico Norteño	25.08	Pima
	Cristalino de Chihuahua	92.01	1		1	1		1	1	1	1	1		1		1		Tablilla de Ocho	22.73	Tarahumara
	Palomero de Chihuahua	83.33			1									1				Dulcillo del Noroeste	10.81	Tepehuán
	Gordo	81.16	1		1			1	1	1	1	1		1		1		Ratón	10.28	
	Apachito	75.38			1							1		1						
Northeast	Tuxpeño Norteño	25.69	1		1				1	1				1	1	1		Tuxpeño	4.81	Ninguna
	Ratón	21.20	1		1			1	1	1	1			1	1	1				
Center	Complejo Serrano de Jalisco	100.00			1									1		1		Pepitilla	30.67	Chocho
	Palomero de Jalisco	100.00			1					1				1				Elotero de Sinaloa	15.58	Cora
	Uruapeño	100.00			1									1				Vandeño	11.39	Huichol
	Mushito de Michoacán	92.59	1						1					1				Blando	11.36	Matlatzinca
	Cacahuacintle	86.76	1		1	1		1	1	1	1			1		1				Mazahua
	Arrocillo Amarillo	85.76	1		1			1	1	1				1		1				Mazateco

	Chalqueño	85.26	1		1	1		1	1	1				1	1	1			Mixteco
	Zamorano Amarillo	85.19							1					1					Náhuatl-Altiplano
	Jala	81.40	1			1			1		1		1			1	1		Náhuatl-Veracruz
	Elotes Cónicos	79.72	1		1	1		1	1	1	1			1	1	1			Náhuatl-Zongolica
	Cónico	79.50	1		1			1	1	1	1			1	1	1	1		Otomí
	Palomero Toluqueño	79.25			1			1	1	1				1					Pame
	Coscomatepec	78.15	1		1			1	1	1				1		1			Popoloca
	Dulce	76.19	1							1	1		1	1					Purépecha
	Ancho	72.84	1		1	1		1	1					1	1	1			Tepehua
	Bofo	67.57	1		1	1			1	1	1	1		1					Tepehuán
	Celaya	66.35	1		1	1		1	1	1				1	1	1			Totonaca
	Tablilla de Ocho	59.09	1		1				1	1	1			1					Zapoteca
	Mushito	57.59	1		1	1		1	1	1				1	1	1	1		
	Elotes Occidentales	56.58	1		1	1		1	1	1	1	1		1	1	1			
	Mountain Yellow	50.00	1		1									1					
	Cónico Norteño	43.18	1		1	1		1	1	1	1	1		1	1	1			
	Tabloncillo	40.22	1	1	1	1		1	1	1	1	1		1	1	1	1		
South Pacific	Choapaneco	100.00			1									1				Reventador	38.89	Amuzgo
	Mixteco	100.00			1				1					1				Mushito	38.22	Chatino
	Serrano	100.00						1	1	1				1	1	1		Elotes Occidentales	36.08	Chinanteco
	Serrano Mixe	96.77			1				1					1	1			Mountain Yellow	37.50	Chocho
	Chiquito	88.37						1	1	1				1	1			Zapalote Grande	29.76	Chontal-Oaxaca
	Bolita	80.11	1		1	1		1	1	1	1			1	1	1		Ancho	23.77	Cuicateco
	Mixeño	75.00			1				1					1				Onaveño	21.88	Mazateco
	Negrito	75.00			1				1						1			Nal-tel	20.27	Mixe
	Conejo	73.11	1		1			1	1	1				1	1	1	1	Olotillo	20.24	Mixteco
	Pepitilla	65.50	1		1			1	1	1	1	1		1	1	1		Tabloncillo	17.59	Náhuatl-Michoacán
	Nal-tel de Altura	52.63	1		1		1	1	1	1				1				Olotón	16.64	Náhuatl-Altiplano

	Elotero de Sinaloa	51.95	1	1	1	1			1	1	1		1	1	1		Tabloncillo Perla	13.78	Náhuatl-Zongolica
	Vandeño	50.32	1		1	1	1	1	1	1	1		1	1	1	1	Elotes Cónicos	11.54	Popoloca
	Tepecintle	49.43	1		1	1	1	1	1	1	1		1	1	1	1	Celaya	10.86	Purépecha
																			Tlapaneco
																			Triqui
																			Zapoteco
South East	Motozinteco	100.00			1				1				1				Nal-tel de Altura	36.84	Chinanteco
	Quicheño	100.00			1								1				Tepecintle	35.98	Chol
	Comiteco	95.31	1		1		1	1	1	1			1	1	1	1	Vandeño	20.25	Chontal-Oaxaca
	Tehua	91.11	1		1		1	1	1				1	1			Coscomatepec	19.33	Chontal-Tabasco
	Cubano Amarillo	90.77					1		1				1				Mountain Yellow	12.50	Chuj
	Zapalote Chico	82.86	1		1	1	1	1	1	1			1	1			Ratón	10.28	Cuicateco
	Olotón	80.10	1		1	1	1	1	1	1			1	1	1				Huave
	Zapalote Grande	55.95	1		1	1		1	1	1			1	1	1	1			Jacalteco
	Negro de Chimaltenango	50.00			1				1				1						Kanjobal
	Olotillo	41.86	1		1	1	1	1	1	1	1		1	1	1	1			Mame
	Tuxpeño	41.60	1	1	1	1	1	1	1	1	1		1	1	1	1			Mazateco
																			Mixe
																			Mixteco
																			Náhuatl-Huasteca
																			Náhuatl-Zongolica
																			Popoloca
																			Popoluca
																			Quiché
																			Tojolabal
																			Totonaca
																			Tzeltal
																			Tzotzil

														Zapoteco
														Zoque
Yucatan Peninsula	Dzit Bacal	62.07	1	1	1	1	1	1	1	1		Tuxpeño	11.38	Chol
	Nal-tel	45.95	1	1	1	1	1	1	1	1	1			Mame
														Maya
														Quiché
														Tzotzil

*A: Elote, B: Esquite, C: Nixtamal, D: Pozole, E: Pozol, F: Tamal, G: Tortilla, H: Atole, I: Pinole, J: Tejuino, K: Confectionery, L: Fodder, M: Fuel, N: Totomoxtle, O: Fertilizer