



The pitahaya cactus (*Selenicereus* spp., Cactaceae) has an attractive, large fruit, widely known as dragon fruit. As a crop, it enjoys increasing popularity world-wide.

However, it plays a minor role in most of its area of origin, Mesoamerica.

Little is known about its uses and diversity in the area of origin

This study explored preferences and uses of the plant in El Salvador:

- selection criteria
- traditional classification
- consumption preferences

### Methods

- 150 semistructured interviews in 11 of the 14 departments of the country (38 % women)
- urban and rural people, different educational backgrounds and livelihoods
- questions on uses, preferences, selection criteria and cultivation
- documentation of wild and cultivated populations
- in a sample: measurement of fruit size, shape and sugar content

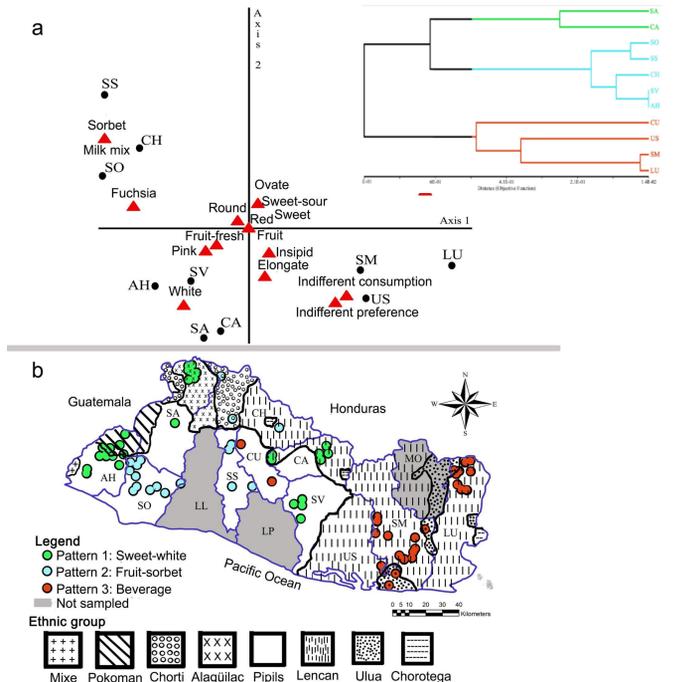


Importance and main uses of the pitahayas (*Selenicereus* spp.): a. Sale as fresh fruit in Bangkok, Thailand, in 2006. b. Preparation for immediate consumption in the Boqueria market of Barcelona, Spain, 2019. c. Fresh fruit, peeled and prepared for consumption in Metapán, Santa Ana, El Salvador. d. A mix beverage (*fresco*) in Sonsonate, El Salvador. e and f. Ornamental pitahaya on a garden wall and *Yucca* in a home garden. Department Ahuachapán, El Salvador

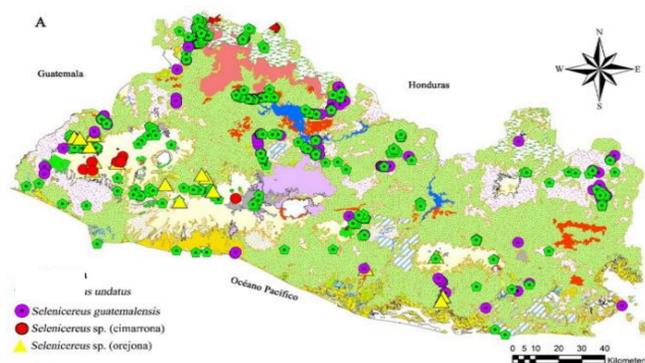
### Results

- Consumption of pitahayas mainly as fresh fruit and mix beverages of various types
- Minor uses, particularly as medicinal, vegetable, and ornament
- Most pitahayas harvested from natural populations - either wild-growing, or transplanted to home gardens
- Main selection criteria: flavor and pulp color; spines are selected against in one region
- Sweet and red-pulped fruit preferred; size not relevant
- Commercially cultivated varieties not very sweet
- Very incipient empirical classification, based on origin (wild or cultivated), flavor, pulp color
- 10 common names, partially overlapping with other species

- Three regional consumption patterns, based on degree of sweetness (some regions prefer sweet-and-sour or sour), consumption type (fruit or beverage).
- Distribution of consumption patterns coincide with cultural and ecological traits.



Consumption and preference of pitahaya (*Selenicereus* spp.) in El Salvador (AH: Ahuachapán; SA: Santa Ana; SO: Sonsonate; LL: La Libertad; SS: San Salvador; CU: Cuscatlán; CH: Chalatenango; CA: Cabañas; SV: San Vicente; LP: La Paz; US: Usulután; SM: San Miguel; MO: Morazán and LU: La Unión). A. Consumption and preference patterns of the pitahayas (*Selenicereus* sp.) in 11 departments of El Salvador, result of a Principal Coordinates Analysis, using the Jaccard similarity coefficient. B. Geographical distribution of the consumption and selection patterns of the pitahaya (*Selenicereus* sp.) in El Salvador, and their relationship with indigenous settlement areas



Distribution of the pitahaya species in El Salvador

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### Conclusions

- Use of pitahayas widespread but not common
- Commercially available pitahayas do not match the preferences of the population
- Plants with the desired traits (very sweet, red pulp) do exist in El Salvador and require more work
- Preference patterns coincide with pre-colonial ethnic and cultural divisions, even though the present-day population speaks Spanish