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POETIC BLOSSOMS, RECORDS OF THE FLORA OF CARIRI IN CEARÁ IN THE WORKS OF THE POET PATATIVA DO ASSARÉ

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Abstract



Artistic expressions convey the perception, culture, and emotional dimensions of those who conceive, interact with, and transmit them. Patativa do Assaré, a popular poet, exemplifies this multifaceted grasp through his extensive work that portrays the landscape, culture, people, and history of the northeastern backlands. His book, "Sing There That I Sing Here - Philosophy of a Northeastern Troubadour," is the focus of this study. The aim was to identify common plant names, analyse them, and assess whether the poet could still draw inspiration from these plants today. The verses contain 2,639 citations related to nature, with 597 terms, 64 of which directly refer to plants. Botanical names were inferred through verse analysis and comparison with herbarium specimens from the Cariri region of Ceará. Despite increasing anthropisation, much of the landscape and place could largely be retold. This research joins others in enhancing the value of biological and cultural conservation, contributing to the conservation status of the imburana and pequi, as evoked by the artist in his work.

Keywords: Ethnobotany; Popular plant names; Northeastern Flora; Patativa do Assaré; Cariri Ceará.

Resumo / Resumen

FLORADAS POÉTICAS, REGISTROS DA FLORA DO CARIRI CEARENSE NA OBRA DO POETA PATATIVA DO ASSARÉ

Manifestações artísticas expressam a percepção, a cultura e as dimensões afetivas de quem as concebe, com elas interage e transmite. Patativa do Assaré, poeta popular que, em sua extensa obra, retratou a paisagem, a cultura, o povo e a história do sertão nordestino exemplifica esta múltipla apreensão. Seu livro "Cante lá que eu Canto Cá – Filosofia de um Trovador Nordestino", é objeto deste estudo. Buscou-se nele, localizar nomes comuns a plantas, analisá-los e avaliar se, o poeta, poderia inspirar-se nessas mesmas plantas, atualmente. Nos versos foram assinaladas 2.639 citações, referentes a 597 termos alusivos à natureza, extraídos 64 nomes diretamente de plantas. Inferiu-se nomes botânicos, através da análise dos versos e cotejamento com exemplares de herbário, oriundos de regiões do Cariri cearense. A paisagem e lugar, a despeito da crescente antropização, lograria, em grande parte, ser recontada. A pesquisa junta-se a outras que potencializam a valorização da conservação biológica e cultural, para a qual contribuem os status de conservação da imburana e do pequi, evocados pelo artista na obra.

Palavras-chave: Etnobotânica; Nomes populares de plantas; Flora Nordestina; Patativa do Assaré; Cariri Cearense.

FLORACIONES POÉTICAS, REGISTROS DE LA FLORA DEL CARIRI CEARENSE EN LA OBRA DEL POETA PATATIVA DO ASSARÉ

Las manifestaciones artísticas expresan la percepción, la cultura y las dimensiones afectivas de quienes las conciben, interactúan con ellas y las transmiten. Patativa do Assaré, un poeta popular que, en su extensa obra, retrató el paisaje, la cultura, la gente y la historia del interior del noreste ejemplifica esta aprehensión múltiple. Su libro "Cante lá que eu Canto Cá – Filosofia de um Trovador Nordestino", es el tema de este estudio. El objetivo era localizar nombres comunes de plantas, analizarlos y evaluar si el poeta podría inspirarse en esas mismas plantas de hoy. En los versos se destacaron 2.639 citas, referidas a 597 términos alusivos a la naturaleza, 64 nombres tomados directamente de plantas. Los nombres botánicos fueron inferidos mediante el análisis de los versos y la comparación con especímenes de herbario, de las regiones de Cariri, en Ceará. El paisaje y el lugar, a pesar de la creciente antropización, lograrian en gran medida ser recontados. La investigación se suma a otras que potencian la apreciación de la conservación biológica y cultural, a lo que contribuye el estado de conservación de la imburana y el pequi, evocados por el artista en la obra.

Palabras-clave: Etnobotánica; Nombres de plantas populares; Flora del noreste; Patativa do Assaré; Cariri Ceará.



INTRODUCTION

Poetry, music, and other artistic manifestations express a given society's perception, culture, and political and economic situations at the time they were conceived. They also evince the affective dimensions of those who write, sing, listen to, and transmit them. People's relationship with nature, myths, and manifest beliefs are transformed into historiographical records, which ethnoscience can convert into scientific data. When unveiled, they enable us to discern the effects of the use of nature in the past, changes in the landscape, the soil, the abundance of a region's fauna and flora, or even the extinction of a particular species (PERSIC; MARTIN, 2008). This field has many theoretical and practical challenges, especially in a country of great biological and cultural diversity like Brazil.

Oliveira et al. (2009) highlight that ethnobiological and ethnoecological perspectives, for example, promote advances in knowledge and guide society-nature relationships by valuing traditional knowledge through their data and influencing public policy formulation.

Cultural manifestations externalize the existential continuity of particular communities or societies. In them, the individual's subjectivity is inseparable from their environment, which is a continuum of their individuality, often most vividly expressed through art. However, as Bourdieu (2008) points out, this subjectivity is constituted by the subject's intrinsic motivations and the influence of the social and cultural conditions they are subjected to.

Art unites perception and materiality when selecting the best plants to extract fibers and braid baskets, make wall scuppers, or line shelters; extracting dyes from different plant structures for diverse uses; collecting fruits and seeds to make adornments; choosing and working wood to carve hoots (whistles to call birds), toys, sacred images, musical instruments or plates for woodcuts, among others. These links alter the sensitive, integrated, and indistinct relationships between humans and their place and can even transform the immaterial into painting, music, and poetry.

In the light of different documented historical sources, numerous studies confirm established relationships between narratives and nature, whether about food, medicinal plants, plant and animal exoticism, or enchantment with a newly discovered landscape, among others (MEDEIROS et al., 2014; TEIXEIRA; PAPAVERO, 2014; ALENCAR et al., 2010; MEDEIROS et al., 2010; FILGUEIRAS; PEIXOTO, 2002; PEIXOTO, 1999; ANDRADE-LIMA, 1984).

One example of the man-nature-society relationship and land-artist discernment is Patativa do Assaré, a selection of whose poetry is the object of this study. His poetry portrayed the life of the people, landscape, culture, and history of the Brazilian northeastern sertão! He was the "sertão bird who musicalized the history of such a well-defended place" (PAIVA; 2002), taking the vitality of Northeastern culture and projecting it throughout Brazil (SANTANA; CARVALHO, 2010).

Patativa portrays his region's reality, daily life, practices, and situations (drought, hunger, rural exodus, environmental degradation, culture, food, the sertão's landscape, and its many inhabitants) in his time and goes far beyond. The literature on Patativa do Assaré and his diverse work is extensive and is distributed in monographs, dissertations, theses, books, scientific articles, magazines and newspapers, and various websites (FEITOSA; SILVA, 2020; NOGUEIRA, 2016; CARVALHO, 2011, 2002; CRUZ, 2011; ÂNGELO, 2009, 1999; ARRUDA, 2009; ANDRADE, 2003; ASSIS, 1999; NUVENS, 1995, CARIRY, 1982, among others).

Based on Patativa's knowledge of his environment, specifically in his work Cante lá que eu Canto Cá - Filosofia de um Trovador Nordestino², botanical knowledge is applied to evaluate the species he mentions. Furthermore, we assess whether the poet, nowadays, could be inspired to sing these same plants, which are vivid and full of meaning in his artistic expression.

UNVEILING POETRY: METHODOLOGICAL PROCEDURES

The book's first edition was published in 1978. The printed copy used in the research is from the fifth edition, published in 1984, by the publisher Vozes, in Petrópolis, Rio de Janeiro, in co-edition with the Padre Ibiapina Foundation and Instituto Cultural do Cariri, Crato, Ceará. The book consists of 105

poems, including Carta ao Patativa - Hélder França (Dedé)3, which was disregarded since it was not written by Patativa. The decision to withdraw it was justified by the poem subsequent to it: Resposta ao meu amigo e colega José Helder França (Dedé)4. An inventory was created for each poem in Cante lá que eu Canto Cá - Filosofia de um Trovador Nordestino, detailing the terms referring to nature, plants, and their associations.

The methodology adopted for this inventory was the one proposed by Filgueiras and Peixoto (2002) in their study on the "Flora and Vegetation of Brazil in Caminha's letter" where the authors listed all the lines in the letter and continued with their research. Thus, the 12,347 lines of the 105 poems in the 328-page book were listed for research purposes.

From this inventory, a database was structured with all the citations of the terms alluding to nature (sertão, lowland, mountain, fields, bird, etc.). Some terms that were repeated, sometimes in the singular, sometimes in the plural (e.g., wood and woods, flower and flowers), or with spelling variations by the author (e.g., argodão, argudão and algodão, which are distinct terms designating the cotton plant: Gossypium barbadense L., in Table 1) were considered as unique terms⁵.

The original spelling in the work has been preserved in the transcription of excerpts from the verses. Subsequently, the terms were standardized, according to the Dicionário Houaiss da Lingua Portuguesa, 2009, Editora Antônio Houaiss and Editora Objetiva, Rio de Janeiro.

The frequency of the standardized terms was measured and summarized in two word clouds - one with general nature terms and the other restricted to plants - generated from the Rstudio Wordcloud package (FEINERER; HORNIK, 2021), where the word size is based on the frequency with which they are cited.

The citations of plants were then filtered and gathered in an Excel spreadsheet containing the following data: term used, poem title, first line of the poem, line in which the term is used, number of times it was cited in the poem, followed by the transcription of part of the verse (Annex 1: Complementary table).

The terms were analyzed for direct or indirect references. Direct references are those in which the plant is explicitly or phonetically cited, and its recognition as an element of the flora is immediate (e.g., gameleira - "De foia de gamelêra" (gamelêra leaf) so that a botanical name could be assigned. Indirect references allude to a product derived from a plant, resulting from human agency (e.g., molasses and rum, as cana-de-açúcar derivatives; flour from mandioca, yarn, or fabric produced from algodão).

Attempts were made to assign scientific names for each direct mention of the vernacular names of plants as a key to seeking information about their occurrence, geographical distribution, uses, and other associated information pertaining to the products or their associations. To this end, taxonomic, ethnobotanical, floristic and floral inventories were consulted, focusing on Northeastern and Ceará flora (CRUZ et al., 2023; LOIOLA et al., 2022; TABOSA et al., 2016; SOARES NETO et al., 2014; RIBEIRO-SILVA et al., 2012; COSTA et al., 2007, among others).

The physical collections of herbaria and virtual herbaria were also consulted (INCT-Herbário Virtual, 2023; Reflora- Herbário Virtual, 2023). Flora and Fungi of Brazil (2023) and The Plant List (2023) were used to verify the scientific names assigned. The search for botanical specimens collected in the Cariri region, with notes on the vernacular names and uses, were valuable findings, especially from collectors prior to or contemporary to Patativa.

Information about the poet was predominantly taken from the interview conducted by Rosenberg Cariry, "Patativa do Assaré: Sua poesia - Sua Vida," published in 1982, in the book Cultura Insubmissa (Estudos e Reportagens), by Nação Cariri Editora, Fortaleza.

Two field visits were made to the Cariri region (August 2017 and September 2018) to follow some paths taken by the work's author (Figures 1 a and b), including the centers of the municipalities and some localities in Assaré, Barbalha, Crato, Missão Velha, Nova Olinda, Juazeiro and Santana do Cariri. Among the expedition's activities, priority was given to routes in Chapada do Araripe, visits to the Patativa do Assaré Museum, in Assaré, and to Juazeiro and Crato's municipal markets.

It was decided to analyze the plants referenced from the poet's perspective and the local practices of the rural communities of Cariri due to the functional multiplicity and local cultural characteristics. Thus, the same plant can be a source of shade, shelter from the heat, and have edible fruit. It can also be



harvested in a yard without having been planted. Crops can be grown for sale rather than personal consumption, or even for consumption and not for sale.

THE PATATIVE POET OF ASSARÉ

Antônio Gonçalves da Silva, known as Patativa do Assaré (03/05/1909-08/07/2002), was born in Serra de Santana, Assaré municipality, Ceará. The son of farmers, he lost his father at the age of nine. He started creating verses at 12, influenced by the cordéis⁷ read by his older brother. In his own words, "I started making verse at the age of 12. And I always continued in the life of a farmer" [...]. "At 16, I bought a guitar and started improvised singing" (CARIRY, 1982). When he was 20, he went to the state of Pará with an uncle. There, he received the nickname "Patativa," attributed to José Carvalho de Brito, a writer from Ceará who wrote for the newspaper Correio do Ceará at the time (CARIRY, 1982). The nickname refers to "the association of the sweet song of the bird (Sporophila plumbea Wied, 1830) with the poet's performance" (FEITOSA, 2003; CARIRY, 1982).

His poetry and speeches develop themes such as love, fraternity, justice, and freedom. They also address the dramas that marked his life, such as the loss of his right eye as a result of measles, the loss of his father, and his work as a farmer. He also discusses his perceptions and experiences of the environment and peasant practices, in addition to the difficulties farmers and workers face due to the lack of protection. His own difficulties did not prevent him from continuing to make poetry and sing in his home, at events and parties, and using the radios of the cities in the region where he lived, especially Radio Araripe do Crato, to disseminate his work. Such a dynamic of life made it possible to gain recognition and find people who stimulated him and helped him to publish books that nowadays are markers of national poetic history (CARVALHO, 2011; FEITOSA, 2003; CARIRY, 1982, among others). His recognition and gratitude to these people are expressed on several occasions, such as:

- "... The copy was typed in the city of Crato by Dr. Moacir Mota, was sent to Rio de Janeiro, where Dr. José Arraes Alencar, this Latinist, a man of deep knowledge, published my book at the Borçoi publishing house..." (CARIRY, 1982, p.35).
- "... I have only published my books on the initiative of men of culture, like Cante lá que eu Canto Cá at the moment. Cante lá que eu Canto Cá was the initiative of the man of letters, Prof. Plácido Cidade Nuvens." (CARIRY, 1982, p.36).

In addition to many cordéis, he published seven books, the first being Inspiração Nordestina in 1956, and recorded five albums (SANTANA; CARVALHO, 2010). He received several honors and awards and was admired by great names in Brazilian popular music, including Luiz Gonzaga and Fagner, who recorded his poems Triste Partida⁸ and Vaca Estrela e Boi Fubá⁹.

The Serra de Santana was his cradle and inspiration, where he discovered the answer to things in his dialogues with nature and its sounds, generating poetic abundance from dry land (FEITOSA, 2003). He was a farmer all his life and always lived in the region where he grew up – Cariri, in the south of Ceará.

His worldview can be seen, in part, in the interview given to the Nação Cariry newspaper when he was 70 years old (CARIRY, 1982):

"[...] Cariry Nation: "I would like to know your philosophical stance towards life, how you face life, how you view life."

Patativa do Assaré: "I see life as a great problem for man, a difficult problem to solve. He must not waver and should philosophize about his rights and seek to defend himself. I see that life without love, life without fraternity, and without contact or friendship with each other is truly hell. The world would only be good if there was this understanding of love and brotherhood. What devastates life is precisely this lack of love, this lack of protection. The great exploiting the small and this is what brings difficulty to each one's life" [...].

ASSARÉ 'S PLACE OF PATATIVA

Different meanings have been conceived to define the landscape, which consists of layers of both rocks and memories. It is formed by a heterogeneous set of functionalities and territories in time and space (SCHAMA, 1996; SANTOS, 1996). Thus, landscapes can be described from different perspectives and rationalities, giving them scale, circumscription, historicity, and singularity. We are accustomed to situating nature and human perception in two distinct fields when, in fact, they are inseparable. Before it can be a rest for the senses, the landscape is the work of the mind.

Therefore, the landscape is always heterogeneous: a set of natural and artificial forms. It is formed of fractions of both, whether in size, volume, color, use, or any other criterion. Life in society presupposes a multiplicity of functions, and the more of these, the greater the diversity of forms and actors. The more complex the social life, the more we distance ourselves from the natural world and address ourselves to an artificial world (SANTOS, 1996).

Forged in lived experience, knowledge, and feeling, the Cariri of/in Patativa considered herein follows the regional geographical representation of Irineu Pinheiro, Father Antonio Gomes de Araújo, Raimundo Teles Pinheiro, and others, as historically and sensitively described by Semeão (2023).

Transcending space and landscape, his poetry evokes a sense of place. According to Tuan (1980), place is understood as a center of meaning constructed and experienced through the eyes and mind and how it is perceived. These records also express a "sensory experience and its rootedness in a locality, in addition to emotional commitment", which are rare (TUAN, 1980). It derives from a human attachment to its place at the communal or regional scale, the creative manifestations that unveil natural and cultural identities.

Thus, Patativa is constituted, from his place, impregnated with his childhood, work, and man's experiences engaged in the issues of his time and vicissitudes, as his verses express:

- "[...] I was born among nature, /Always adoring the beauties/From the work of the Creator,/Hearing the wind in the trees? And seeing the grass in the fields/Painted yellow./ I'm a countryman,/ No letters and no education;/ My verse has the scent/ Of the dust of the sertão; [...]" (Aos poetas clássicos, p. 19).
- "[...] I am a sertanejo ,/ A poor peasant/ Who has no cattle or cheese,/No gold, silver or copper./I'm a sertanejo farmer,/ I work all day,/ Winter or summer./ My hand is calloused, My skin is tanned/ From the heat of the sertão.[...]" (Vida sertaneja, p. 75).
- "[...] My God, what will become of us? This is how the poor man speaks, From the dry Northeast, Afraid of the plague, Of fierce hunger. [...]" (A triste partida, p. 89).

He is also sensitive to communal activities that still exist in Cariri today, and his descriptions of the collective and pleasurable process in a flour house are moving, especially to observers of large cities:

"[...] Who never spent in the mountains/ A flouring time,/ Missed life on earth,/Of the world he enjoyed nothing;/ For there, the cook, Scrapper and washing woman,/ Are all content, Giving a belly laugh, Joyful and speaking, Throwing husks at us. [...]" (O Puxadô de roda, p. 343).

Articulating Patativa's place based on his sensory experience, prioritizing the elements of the flora, his flora, and comparing them to documentary records challenges the understanding of different subjectivities.

As a place, the Cariri reported in this study is circumscribed by Patativa's paths as he traveled through municipalities, fairs, events, and visits, experiencing nature, singing, and reciting his verses (Figures 1a and b). It is located in the South Ceará mesoregion, which covers 25 municipalities in five microregions (BRASIL, 2023). The municipalities and localities that he frequented the most were in the microregions Chapada do Araripe and Cariri Cearense, formerly inhabited by the Kariri people (PUNTONI, 2002). Assaré – the poet's birthplace – Araripe, Campos Sales, Juazeiro do Norte, Crato,



Barbalha, Missão Velha, Jardim, Nova Olinda, Santana do Cariri, and Farias Brito, among others, are municipalities in these two microregions.





Figure 1 - Phytophysiognomies in the surroundings of the municipality of Assaré, marked by seasonality. (a) drought period; (b) post-rain period. (Photos: R.Guedes-Bruni).

It is considered the "oasis" of the Brazilian northeastern semi-arid region due to its fertile soil, humid territory, and abundant water resources resulting from its reliefs and altitudes. Thus, its landscape, circumscribed to the Caatinga biome, consists of a mosaic of phytophysiognomies composed predominantly of cerrado areas ("island" habitat, sec. COSTA; ARAÚJO; LIMA-VERDE, 2004), as well as by cerradão, caatinga, carrasco and humid forests (MORO et al., 2014; ARAÚJO et al., 2005; ANDRADE-LIMA; GOMES, 1981) Cariri is also recognized as "cultural granary of Ceará" because of its numerous cultural and artistic manifestations.

Over the last 40 years, vegetation cover in this area and these municipalities has contracted about 10%, according to MapBiomas (SOUZA et al., 2020). The expansion of the agricultural area is the foremost factor in this decrease. At the same time, the role played by conservation units in the Araripe Plateau for natural landscape integrity, such as the Araripe-Apodi National Forest, the Geopark, and the Araripe Plateau Environmental Protection Area, among others, is noteworthy.

POETIC RECORDS, FLORA RECORDS

The database counted 597 terms alluding to nature in 2,639 citations. After standardization and filtering, restricted to the designation of flora elements, 64 names referring to plants were found in 213

citations.

When analyzing the frequency of citations of the terms alluding to nature, initially, we observe the importance of the sertanejo universe contained in Patativa's poetry, where words such as sertão, earth, world, fields, and poor are prominent (Figure 2).

Patativa's self-definition contains the inseparability between subject and environment, and it is in his mode of existing that we encounter his gaze, full of feeling and wisdom; nothing escapes him:

"[...] I'm a sertanejo born and bred The sertão is an open book Where we read the poem The richest inspiration. I live in the sertão and the sertão in me, [...]" (O Retrato do Sertão , p. 233).

His poetry expresses his identity as a sertanejo and farmer, as illustrated by the frequency of terms mentioned, alluding to the handling of local plants like algodão, feijão, and milho (Figure 3).

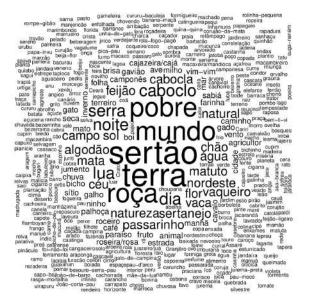


Figure 2 - Word cloud showing the description of the landscape and its flora, with general terms about nature.



Figure 3 - Word cloud showing the description of the landscape and its flora, with the terms related to plants.



The records of nature, based on the author's poetic gaze, express his attention to the architecture and phenology of trees, the interactions between plants and animals, the way roots are fixed, and the chronology of birds' vocalizations, as expressed in the following verses:

- "[...] If above, in the green crown, / The birds sang, /Below, in the fresh shade / The little child played. That tree, so friendly, / Kind and untiring, / Everything was protection. Its rounded canopy/ Always leaf-covered, /Whether it was winter or summer. [...]" (A menina e a cajazêra, p.198).
- "[...] I know a mastic tree/ Very close to my garden, /In this same wood / There is a dry and hollow branch./ A woodpecker beat that branch every day/... He hunted wood borers and beetles/ Which are his food,[...]" (O pica-pau, p. 208).
- "[...] I want to sing of my sertão... Where the peasant wakes up/ Knowing the right time/By the song of the Tinamou. [...]" (O Retrato do Sertão, p. 234).

Plants' life cycles do not escape observation either, nor do the animals associated with such processes when he sings:

"[...]And for it is well proven/That everything that the earth creates/Has its moments of enjoyment/And its years of agony, /It went bit by bit, Emptying and making hollow, / In an endless destruction,/ And subject to bad animals:/The sawdust beetle, /The wood borer, the moth and the termite.[...]" (A menina e a cajazêra, p.200).

The recognition of the medicinal value of the local plants is evidenced when the poet describes the indigestion of those who go hungry, or even when they eat more than usual, in the verses:

"[...] But, as there is no money,/ to buy an injection,/ The way is the baby silver plant,/ Which is born on the ground:/Crush with quina-quina Macela,/mamão leaf tea/ And other drinks/That I will not tell,/ For if I were to say everything,/ It would make a beautiful book.[...]" (Coisas do Meu Sertão, p. 290).

In addition to the use of backwoods plants as healing sources, the poet reveals in this previous poetry the diversity of these medicinal plants when he justifies:

"[...] That I will not tell,/ For if I were to say everything,/ It would make a beautiful book. [...]" (Coisas do meu Sertão, p. 289).

Considering the 213 citations of the 64 plants recognized in this study, the following stand out among the most cited: algodão (cited 31 times), feijão (24), milho (15), cajazeira (13) and rosa (12) (Table 1).

#	Common name	NP/NC	Verified botanical name	Botanical family	Origin	Use
1	abrolho	1/1	Kallstroemia tribuloides (Mart.) Steud.	Zygophyllaceae	N	NC
2	açafroa	1/1	Bixa orellana L.	Bixaceae	N	CT
3	açucena	1/1	Hippeastrum stylosum Herb.	Amarillydaceae	N	CT
4	algodão	12/31	Gossypium barbadense L.	Malvaceae	Е	CT
5	angico	2/2	Anadenanthera colubrina (Vell.) Brenan	Fabaceae	N	NC
6	aroeira	3/4	Myracrodruon urundeuva Allem.	Anacardiaceae	N	NC
7	arroz	5/5	Oryza sativa L.	Poaceae	Е	CT
8	banana	1/1	Musa spp.	Musaceae	NZ	CT
9	banana-maçã	1/1	Musa acuminata x M. balbisiana (Grupo AAB)	Musaceae	NZ	CT
10	batata	1/1	Ipomoea batatas (L.) Lam.	Convolvulaceae	NZ	CT
11	bonina	1/1	Mirabilis jalapa L.	Nyctaginaceae	Е	CT
12	bredo	1/2	Amaranthus spinosus L	Amaranthaceae	Е	NC
13	bugari	2/2	Jasmimim aff. sambac Duque	Oleaceae	E	CT
14	café	7/12	Coffea arabica L.	Rubiaceae	Е	CT
15	cajazeira/cajá	2/13	Spondias mombin L.	Anacardiaceae	N	CT
16	cajueiro	4/7	Anacardium occidentale L.	Anacardiaceae	N	CT
17	cana	2/2	Saccharum spp.	Poaceae	E	CT
18	canela	1/1	Cinnamomum verum J.Presl	Lauraceae	Е	CT
19	capim	1/1	Poaceae	Poaceae	-	-
20	carrapicho	1/1	Cenchrus echinatus L.	Poaceae	N	NC
21	castanha-portuguesa	1/1	Castanea sativa Mill	Fagaceae	E	NC
22	catingueira	1/1	Cenostigma spp.	Fabaceae	N	NC
23	catolé	1/1	Syagrus oleracea (Mart.) Becc.	Arecaceae	N	NC
24	coqueiro/coco	2/2	Arecaceae	Arecaceae	70	CT
25	cravo	1/1	Dianthus sp.	Caryophylalaceae	E	CT
26	feijão	16/24	Phaseolus vulgaris L.	Fabaceae	Е	CT
27	feijao-ligeiro	1/1	Phaseolus vigna L.	Fabaceae	E	CT
28	flamboyan	1/1	Delonix regia (Bojer ex Hook.) Raf.	Fabaceae	Е	CT
29	fumo	2/2	Nicotiana tabacum L.	Solanaceae	E	CT
30	gameleira	1/1	Ficus gomelleira Kunth	Moraceae	N	NC
31	grama	3/3	Poaceae	Poaceae	E	CT
32	imbé	1/1	Philodendron spp.	Araceae	N	NC
33	imburana	2/3	Amburana cearensis (Allemão) A.C.Sm.	Fabaceae	N	NC
34	jacarandá	1/3	Jacaranda brasiliana (Lam.) Pers.	Bignoniaceae	N	NC

Table 1.1- List of plants cited by Patativa do Assaré (1978) in the work Cante lá que eu Canto Cá – Filosofia de um Trovador Nordestino, in alphabetical order by their common names. NP/NC = Number of poems in which the vernacular is cited/Total number of citations; Origin: N = native; E = exotic; NZ = Naturalized; Use: CT = cultivated, NC = not cultivated.



#	Common name	NP/NC	Verified botanical name	Botanical family	Origin	Use
35	jasmim	1/1	Jasminum spp.	Oleaceae	Е	CT
36	jatobá	2/2	Hymenaea spp.	Fabaceae	N	NC
37	juazeiro/juá	3/8	Sarcomphalus joazeiro (Mart.) Hauenshild	Rhamnaceae	N	CT
38	jucá	1/1	Libidibia ferrea (Mart.) ex Tul. L.P.Queiroz	Fabaceae	N	NC
39	jurema	1/1	Mimosa temuiflora (Willd.) Poir.	Fabaceae	N	NC
40	jurema-preta	1/1	Mimosa arenosa (Willd.) Poir.	Fabaceae	N	NC
41	macambira	1/3	Bromelia laciniosa Mart. ex Schult. & Schult. f.	Bromeliaceae	N	CT
42	macaxeira/mandioca	2/7	Manihot esculenta Crantz	Euphorbiaceae	N	CT
43	macela	1/1	Egletes viscosa (L.) Less.	Asteraceae	N	NC
44	maliça	1/1	Mimosa sensitiva L.	Fabaceae	N	NC
45	mamão	1/1	Carica papaya L.	Caricaceae	NZ	CT
46	manjericão	1/1	Ocimum basilicum L.	Lamiaceae	Е	CT
47	melão	2/2	Cucumis melo L.	Cucurbitaceae	E	CT
48	milho	11/15	Zea mays L.	Poaceae	Е	CT
49	mucunã	1/2	Macropsychanthus grandiflorus (Mart. ex Benth.) L.P.Queiroz & Snak	Fabaceae	N	NC
50	oiticica	1/1	Licania rigida Benth.	Chrysobalanaceae	N	NC
51	pajeú	1/1	Triplaris gardneriana Wedd.	Polygonaceae	N	NC
52	palmeira	1/1	Arecaceae	Arecaceae		-
53	pau-d'arco	3/4	Handroanthus spp.	Bignoniaceae	N	NC
54	pau-mocó	1/1	Luetzelburgia auriculata (Allemão) Ducke	Fabaceae	N	NC
55	pequi	1/1	Caryocar coriaceum Wittm.	Caryocaraceae	N	NC
56	quiabo	1/1	Albemoschus esculentus (L.) Moench	Malvaceae	NZ	CT
57	quina-quina	1/2	Coutarea hexandra (Jacq.) K.Schum.	Rubiaceae	N	NC
58	rompe-gibão	1/1	Sideroxylon obtusifolium (Roem. & Schult.) T.D.Penn.	Sapotaceae	N	NC
59	rosa/roseira	11/12	Rosa spp.	Rosaceae	Е	CT
60	tomate	1/1	Solanum lycopersicum L.	Solanaceae	NZ	CT
61	trapiá	1/1	Crataeva tapia L.	Capparaceae	N	NC
62	unha-de-gato	2/2	Senegalia spp.	Fabaceae	N	NC
63	urtiga	1/1	Urera baccifera (L.) Gaudich. ex Wedd.	Urticaceae	N	NC
64	violeta	1/1	Viola spp.	Violaceae	E	CT

Tablea 1.2 - List of plants cited by Patativa do Assaré (1978) in the work Cante lá que eu Canto Cá – Filosofia de um Trovador Nordestino, in alphabetical order by their common names. NP/NC = Number of poems in which the vernacular is cited/Total number of citations; Origin: N = native; E = exotic; NZ = Naturalized; Use: CT = cultivated, NC = not cultivated.

It was possible to give 35 botanical families of the 64 common names mentioned in the verses, of which Fabaceae has the highest number of common names (13), followed by Poaceae (7), Arecaceae (4), and Anacardiaceae (3). Five common names were identified by family alone: capim and grama (Poaceae), coco and coqueiro and palmeira (Arecaceae).

Eleven common names covered more than one botanical species, whether native to the local flora or cultivated exotics, and it was decided that the identification should be maintained up to the genus. They are banana, cana-de-açúcar, catingueira, cravo, imbé, jasmim, jatobá, pau-d'arco, rosa, and unha-de-gato (Table 1).

Botanical species names were assigned for 48 common names alluded to in the verses; these identifications were treated as inferences. The taxonomic identification of the names referenced by the poet was hampered by the diversity of the local flora that makes it possible to place several species of plants under the same popular designation and, allied to this, the impossibility of having the exemplar testimony in a collection.

Taking the Fabaceae family as an illustration, it is abundant in Brazilian flora, with 3,033 species (BFG, 2021), and in the Caatinga (CRUZ et al., 2023; QUEIROZ, 2009), so the quotations of common names by the poet reveal their richness, both in the natural and built landscape.

The trees adorning squares and paths are exalted (flamboyan, Delonix regia (Bojer ex Hook.) Raf., as shady canopies, housing the sertanejo and wildlife, in addition to fruit providers (angico, Anadenanthera colubrina (Vell.) Brenan or mucunã, Macropsychanthus grandiflorus (Mart. ex Benth.) L.P.Queiroz & Snak). Patativa's farmer's spirit means that, like fields, feijões are repeatedly mentioned in his verses (25 times).

"[...] In the beautiful fields feijões were sprouting, the corn was already making charcoal. [...]" (História de uma Cruz, p. 292).

The Fabaceae occurring in the Chapada do Araripe were inventoried by Cruz et al. (2023), who recorded 194 species, of which 44% are trees. They highlight the imburana mentioned by Patativa, which was given the name Amburana cearensis (Allemão) A.C.Sm., a species threatened with extinction.

"[...] I went down... down... On the way to the creek, I got below a large imburana [...]" (O Vim-vim, p.138).

Among the Fabaceae, the designation unha-de-gato is predominantly used in the region for three species of the genus Senegalia (Senegalia riparia (Kunth) Britton & Rose) ex Britton & Killip; Senegalia polyphylla (DC.) Britton & Rose; Senegalia langsdorffii (Benth.) Seigler & Ebinger.); So too, catingueira applies to three species of the genus Cenostigma (Cenostigma bracteosum (Tul) E. Gagnon & G.P. Lewis; Cenostigma pyramidale (Tul.) E. Gagnon & G.P.Lewis; Cenostigma nordestinum E. Gagnon & G.P. Lewis). Maliça is used for two species of the genus Mimosa (Mimosa sensitiva L. and Mimosa pudica L.). Jatobá is a name widely used in Brazil for species of the genus Hymenaea. In the Cariri region, two species are the most common in areas of natural vegetation: Hymenaea courbaril L. and Hymenaea eriogyne Benth.

The plants native to the region, correspond to about half of the vernacular names used by the poet: cajazeira, juazeiro, imburana, jacarandá, and pau-d'arco, among others.

Food species predominate among the exotic (15) and naturalized (10) plants (e.g., feijões, milho, and mandioca/macaxeira), as well as those planted for shade or to beautify the landscape (flamboyan and jasmim); some plants are metaphors for something or someone (rosas and bugari). That is, the poet adopts the everyday use of these elements without departing from the general meaning used by the population. At the same time, his sensitivity is evident when referring to the rosa as delicate, evoking beauty, but also the sharpness ("thorns") associated with suffering:

- "[...] In your sleep you have kisses/From the rosa and the bugari And benevolent spirits defend you from the saci . [...]" (Mãe preta , p.97).
- "[...] Tomorrow, sweet and kind illusion, Beautiful rosa wet with the dew [...]" (Amanhã, p.181).
- "[...] In my simple verses/The reader will find/ Thorns instead of rosas,. [...]" (Northeastern emigrant in the south of the country, p. 324).

The feijão is remembered in 16 poems and cited 24 times, revealing the multiplicity of roles that the plant plays in the farmer's life: sometimes as food, sometimes sustenance, sometimes as pleasure and party.



- "[...] With feijão, milho and flour, I was fat, very chubby My dear Nanã,/ When there is drought in the backlands, the poor have feijão, flour, milho and arroz. [...]" (A morte de Nanã, p. 38).
- "[...] From the cheerful moonshine, From the threshing of feijão, / It's feijão for lunch And a dinner of porridge [...]" (O retrato do Sertão, p. 233).

The above also applies to the only mention of feijão-ligeiro:

"[...] And the cheerful peasant Goes to plant feijão-ligeiro, For it grows first in the lands of my sertão [...]" (Festa da Natureza, p.79).

Milho, referenced in 11 poems and 15 quotations, reiterates the routine of fieldwork and also marks the seasons in the Chapada do Araripe; the arrival of rain makes the shoots and foliage bloom in the landscape, as manifested in the verse:

"[...] milho and feijão are born and the chapada is green [...]" (Ao Dotô do Avião, p. 254).

Despite their value in northeastern cuisine, mandioca and macaxeira, distinct names for the same species (Manihot esculenta Crantz) were mentioned directly (7) in two poems:

- "[...] There was everything, melão mandioca and loads of fruit [...]" (Uma triste verdade, p. 132).
- "[...] Sometimes I thought that my heart turned to mandioca and macaxeira [...]" (O Puxadô de Roda, p. 340).

Considered "the queen of Brazil" by Cascudo (2004), mandioca is emblematic due to its importance and versatility in the culinary repertoires of different cultures in the Brazilian territory. In the northeastern semi-arid region, its main product, flour, is incorporated into the diet and, above all, into the very survival of rural communities. The processes of making, marketing, and consumption unveil social relations and evoke a unifying dimension, which is loaded with symbolic and identity values of the sertanejo.

In addition to the poetic allusions to beauty, Patativa's verses also translate the affections that enchant social relations and correlate work, social representations, and behaviors among young workers. A valuable example is the poem O Puxadô de roda, in which he presents the work in the flour houses and where the quotation of the mandioca comes from. Patativa talks about macaxeira or mandioca in a social context that refers to the work, both the "mandioca scraper" and the "mandioca puller." In this poem, he figuratively presents the heart of the latter, which is treated by the scrapers. Thus, he expands the understanding of the macaxeira beyond its main culinary attribute, adding to its potential in the cohesion and growth of agrarian communities in its Cariri and northeast by connecting souls.

Arroz appears in five poems, where it is mentioned six times, linked to the common feijão, revealing the species to be planted according to the local seasonality. Patativa shows his agrarian empiricism while still stamping his social criticism on the verses full of drama. Imagination, representation, reality, and suffering meet in one place.

- "[...] And the cheerful peasant Goes to plant feijão-ligeiro, For it grows first in the lands of my sertão [...]" (Festa da Natureza, p.79).
- "[...] When there is drought in the backlands, to the poor abundant feijão. Flour, milho, and arroz, This is what happened: My daughter died, In the drought of thirty-two [...]" (The Death of Nanã, p. 38).

During the mid-nineteenth century, algodão was called white gold as it leveraged Ceará's economy, bringing economic prosperity, in addition to a sizeable migratory flow, until the 1980s (CUNHA, 2020; ARAÚJO et al., 2012; GONÇALVES; RAMOS, 2008).

Algodão is mentioned by Patativa in 12 poems, with 31 quotations, which emphasizes its powerful production, in addition to the work resulting from it, as in:

"[...] After the harvest arrives, Mode carries the algodão / Because he gets a Great algodão crop from year to year. / Of that owner who took so much algodão, the people comment,/ Who treads on the stubble In the algodão plantation [...]" (O Controlista , p. 268).

The importance of algodão permeates the product's value, the form of cultivation, and the force and exploitation in the relationship between the producer, the inspector, and even the middlemen when referring to the price of production. However, it is also exalted for its pure color, creating an image, a place in the imagination, describing the vicissitudes of the sertão in its form.

- "[...] It causes anger and disgust We pay tax Charged beyond reason, And in addition to certain rights, It is even subject to the algodão tax [...]" (A vida aqui é assim, p. 81).
- "[...] And today, suffering alone, without being beautiful or ugly,I am a poor bachelor with an algodão beard Suffering in the alien house [...]" (Tudinha, p. 82).

The verses repeatedly refer to yard plants that correspond to exotic ornamental or shading plants and native fruit trees planted or self-propagating spontaneously near the dwellings and field paths, which are maintained and managed, such as juazeiro, caju, açafroa, mamão, banana, cana-de-açucar, among others.

- "[...] I was going to sit under/ A Juazeiro tree,/ To enjoy / The birds sing,/[...] I made the juazeiro a church/ And kissed, as you kiss/ Two little Saint Anthonys /[...] The two old birds/ Sang a sound of tears./ Hearing that song,/ Soon in my body went all cold/ And climbing fast/ The juazeiro branches,/ I found the nest empty [...]" (O sabiá e o gavião, p. 226).
- "[...] A flock came to the meadow,/ thrush and sabiá/ And began to sing/A sanctified hymn,/In the cajueiro's crown/ In the canopy of a cajueiro tree/ It was well in the yard/ In my potholed ranch./ [...] Outside the birds sang,/ In the cajueiro's crown./ Instead of moaning and crying,/The birds sang in chorus [...]" (A morte de Nanã, p. 38).

Ornamental plants stand out in the yard or near the residences due to their flowers' beauty and perfume, associated with feelings such as longing and hope, a passionate description of someone, or even a punishment for a mistake.

"My hut and my flamboyan tree were left behind" (Serra de Santana, p. 239).

"With yellow flowers, We can call it a lace of açafroa" (Radio ABC, p. 315).

When considering the landscape's native plants (Table 1), 34 plants are referenced as they are more frequently cited: cajazeira, cajueiro, angico, and juazeiro. Among the herbs, the açucena (Hippeastrum stylosum Herb.) stands out, a plant that adorns the region's landscape and is cultivated to decorate residences and gardens.

These species inspire the poet to extol life's beauty when describing the growth of the cajazeira, the formation of its leafy canopy that cools the heat of those who shelter under it, as much as it provides perches or roosts to the birds that chirp in it. He also exalts harmonious relationships and relativizes them by describing the tree's aging as a result of time, intensified by the predation of the saw beetle. Harmony and imbalance, fullness and finitude are portrayed through the ecological interactions that simulate the cycle of life:

"[...] That showy crown For an innocent child It was a sky, a Green paradise, the color of hope. The birds were celebrating, the sweet orchestra was charming [...]" (A menina e a cajazêra, p.197).



"[...] And for it is well proven/That everything that the earth creates/Has its moments of enjoyment/And its years of agony, /It went bit by bit, Emptying and making hollow, / In an endless destruction,/ And subject to bad animals:/The sawdust beetle, /The wood borer, the moth and the termite.[...]" (A menina e a cajazêra, p.200).

He does the same with the cajueiro, whose dense and expansive crown is capable of sheltering countless species, such as many birds and cicadas:

- "[...] On the morning of that day, a flock came to the meadow,/ thrush and sabiá/ And began to sing/A sanctified hymn,/In the cajueiro crown/ In the canopy of a cajueiro/ It was well in the yard/ In my potholed ranch./ [...] (A morte da Nanã, p. 42).
- "[...] I was coming, and besides that, I heard every day of the week The vim-vim bird in my yard, Singing in the cajueiro Near my shack "[...] It spends the day in the canopy of the cajueiro, singing, always singing, [...]" (O Vim-vim, p. 150).
- "[...] In the round crown of some juazeiro The sharp cicada unleashes its song [...]" (Dois Quadros, p.55).

The landscape and its history are losing aspects of its biological diversity resulting from the tension between the expansion of urban or agrarian areas and the adaptability of its components. Thus, reflecting on the aspects related to evaluating the conservation status of Brazilian flora species, considered the richest in the world (BFG, 2021), we sought to interpret the set of native plants sung by Patativa from this perspective.

Thirty-four native plants mentioned in the poems were considered, based on the work coordinated by the CNCFlora/National Center for Flora Conservation and using the criteria of the IUCN/International Union for Conservation of Nature and Natural Resources. Just over 20% of the species of the Brazilian flora were evaluated, of which only six were classified as at risk of extinction. The rompe-gibão (Sideroxylon obtusifolium), pau-mocó (Luetzelburgia auriculata), jacarandá (Jacaranda brasiliana), and aroeira (Myracrodruon urundeuva) are registered as Least Concern (LC). Only one, the imburana (Amburana cearenses) was considered Near Threatened (NT), while the pequi (Caryocar coriaceum) was Vulnerable (VU).

Given the floral diversity of this region and the processes of reduction and fragmentation of natural areas, it is vital to continue and accelerate these evaluations, both for Brazil and at the regional and state scales, to assist environmental agencies, especially in the Chapada region, in the search for strategies that prevent fragility and mainly, local species extinctions.

CONCLUSION

The agricultural, heterogeneous landscape of the Cariri region, articulated with natural areas, is also conjured through the many native species that adorn it and whose anthropic actions redesign new spatiality and landscapes. Such arrangements impact species populations at different scales, often contributing to their vulnerability or even threat of extinction, such as the myrrh and souari nut mentioned above. Expanding agricultural and urban areas increase the fragmentation of natural spaces and confine these wild populations in conservation units and small privately owned fragments. The difficulty, or even hesitation, felt when assigning scientific names to plants cited by their local vernacular names taxonomically is also experienced by other authors. Hence, the importance of clarifying morphological characteristics such as: color, size, scent, and organization through the valuable collection labels in studies that use botanical collections. The same applies to cultural characteristics, e.g., local denominations, uses, and other characteristics that emerge during fieldwork through the orality of the communities. In Patativa's poetic language, based on his local experience and accuracy as a persistent observer, such characterizations were of great help to resolve doubts and enable analyses that led to taxonomic inferences.

From this thematic snapshot, the analysis of the vernacular names of plants in Cante lá que eu canto cá demonstrates its verses' value to learn about the local flora, its uses in the ornamentation of the dwellings, in the composition of gardens and yards, as well as the plants used in cultivation for subsistence or profit. They also report the landscape's transformations in response to the seasonality of the rains, the resulting flowering, the vegetation covered with foliage, and the availability of resources that shelter and feed the birds, insects, and other animals evoked. They reconnect the current communities to the cultural traditions of their place, expressed in fairs, festivities, and evocative celebrations. The imagery is shaped by a realistic narrative, where environmental aspects are inseparable from social issues, thus examining the nature of the sertão and the sertanejo.

The plants extolled in his poetry still compose the landscape today where the Chapada do Araripe persists. Despite its majestic geomorphology and natural and socio-cultural values, social inequalities remain. Therefore, his poetry could be sung/told in contemporary times as Patativa did in his lifetime.

Poetry and the power of the words therein describe nature in time and space and also unveil the multiplicity of its insertions. It is an exploratory field of research beyond the inter-related fields of ethnobiology, humanist geography, and ecocriticism in which verse comes into being and clarifies, sensitizes, and encourages efforts dedicated to biological and cultural conservation, where education plays a fundamental role.

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NOTES

- 1 Translator's note: semi-arid interior region of northeastern Brazil.
- 2 You sing over there so I will sing here the philosophy of a Northeastern troubadour.
- 3 Letter to Patativa Helder France (Dedé).
- 4 Response to my friend and colleague José Helder França (Dedé).
- 5 It was decided not to translate the popular names. Only widely known and used plants are discussed here: in food and ornamentation, among others. Namely: algodão (cotton); arroz (rice), banana (banana); café (coffee); cana-de-açúcar (sugarcane); canela (cinnamon); feijão (beans), jasmin (jasmine); mamão (papaya); mandioca/macaxeira (cassava); melão (melon); milho (corn); flamboyan (flamoyant), rosa (rose); tomate (tomato); violeta (violet).
 - 6 Patativa do Assaré; His poetry His life.
- 7 This cultural phenomenon is linked to oral narratives, a poetic genre unique to Brazilian society. Prose novels brought by Portuguese colonizers were adapted into poetry and sung and recited. Cordel literature was recognized as a Cultural Heritage of Brazil by the National Institute of Historical and Artistic Heritage Iphan, in 2018 (Iphan, 2018). To learn more, visit: http://antigo.casaruibarbosa.gov.br/cordel/acervo.html
 - 8 Sad Departure.
 - 9 Star Cow and Cornmeal Ox.
 - 10 To the classical poets.
 - 11 Translators note: a person from the sertão.
 - 12 The cassava wheel puller.



- 13 A Portrait of the Sertão.
- 14 The Woodpecker.
- 15 The Girl and the Cashew Tree.
- 16 Things about my Sertão.
- 17 History of a Cross
- 18 The Purple-throated Euphonia.
- 19 The Saci is a character in Brazilian folklore.
- 20 Black Mother.
- 21 The Death of Nanã.
- 22 Nature's Party.
- 23 To the gentleman on the airplane.
- 24 A sad truth.
- 25 The Controller.
- 26 Life here is like that.
- 27 The thrush and the hawk.
- 28 Two squares.

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