Guardians of Tradition: Exploring the Cultural Significance and Ethno botanical Wisdom in the Indigenous Use of Juniperus Excelsa among the Local Communities of Ziarat, Baluchistan

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Abstract: The world's oldest juniper trees are found in Ziarat. This study documents the ethno botanical data of Juniperus excelsa in Ziarat, Balochistan. In Ziarat, Baluchistan, fieldwork was done in various habitats of J. excelsa to gather ethno botanical data about the species. The current study shows that the indigenous people of Baluchistan have long employed J. excelsa as a multipurpose tree for medicinal purposes. Different illnesses are treated with different sections of J. excelsa. The female cone berry is the most useful portion of the tree since it can be used for healing and its wood can be used as fuel during the cold months when they need domestic energy. It is recommended that these kinds of native ways of using plant resources be recorded and saved before they vanish for research and future generations. The purpose of this study is to have a better understanding of the traditional knowledge that rural Baluchistan people have regarding. J. excelsa and its traditional use for various ailments.

Keywords: Juniperus, J. Excelsa, Ziarat, Baluchistan.

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1. Introduction:

Junipers are members of the Cupressaceous family and are commonly referred to as coniferous plants Adams [1]. Juniperus is the third-largest genus of conifers worldwide. This genus of plants has moderate growth Sharififar et al [2] and a lengthy lifespan Weli [3]. These trees come in different shapes and sizes, from tiny to flat bushes. Juniper trees can grow in harsh weather where other plants cannot grow or survive and in temperature changes while growing in a variety of environments. Residents use juniper wood for crafting a diverse range of wooden items and as a source of fuel for heating and cooking within their homes Buzdar et al [4]. Junipers' wood, berries, and seeds are utilized in the production of various medicinal products Sela et al [5]

Moreover, junipers contain abundant amounts of tripe ten, resin, tannin, lignin, and flavonoids

Altunus [6]. While the leaves and cones of junipers possess numerous antiseptic applications, the berries are employed as a remedy for cough, joint inflammation, and asthma, and a safe therapeutic option for wound healing Altunus [6]. The female cone berries exhibit high levels of Vitamin B1, B3, A, and C, potentially explaining their historical and cultural use in addressing various health issues these berries find application in the treatment of intestinal infections, circulatory problems, kidney and bladder infections, inflammation, and various medicinal formulations Uraku et al [7].

In several regions of Baluchistan, female cones are commonly employed as a carminativeto alleviate stomach pains and digestive issues Hussain, [8]. The indigenous population of Baluchistan relies on the therapeutic properties of female cone berries for addressing kidney problems and urinary issues Walikhan & Khatoon, [9]. The diuretic and stimulating characteristics of the cones make them a valuable resource in both Iran and Pakistan Baqar, [4]. Additionally, the oral consumption of female cones is a traditional remedy for fever and headaches.

Furthermore, these cones find application in treating various respiratory conditions, such as bronchitis and asthma, along with addressing skin conditions and diabetes Baqar, [4]. In Ziarat, the locals utilize a paste made from female cone berries to alleviate swellings and sore joints. These cones are also suggested for the treatment of leucorrhoea, dropsy, and gleets Baqar, [4] and they can also lower blood sugar levels Parvizi et al [10].

2. Materials and Methods

Fieldwork was conducted to gather data from various areas of Ziarat, Balochistan to find the interaction between the indigenous people and Juniperus Excelsa. Engaging with the local communities of Ziarat, we delved into the rich oral traditions and gathered invaluable insights into the historical and cultural significance of Juniperus excelsa in treating different health issues. Indigenous people in Ziarat, Balochistan have been using different parts of Juniperus Excelsa for treating different health problems. Data was collected from different areas of Ziarat, Zindra, and Kawas, where the ethnic groups of Sarangzai, Panizai, Sanerzai, Sehzai Tarens, Dutani, Shawani, Badeni, and Bravehi live.

These areas were chosen as they are the home of Junipers Excelsa Twelve most informed, senior and experienced individuals were chosen to be interviewed face to face and the interviews were recorded after obtaining their consent.

An open-ended interview was conducted to document ethno botanical data. Through this holistic exploration, we aimed to discern patterns of using Juniperus excelsa for different ailments, shedding light on its efficacy in these regions.

3. Result and Discussion

In our exploration of various regions of Baluchistan, Juniperus Excelsa is known by several local names. In Pashtu and Urdu, the most well-known names are Obusht and Sanober. The study's findings indicate that J. Excelsa holds a place of prominence in the cultural fabric of Ziarat, Baluchistan. Our findings underscore the widespread utilization of J.excelsa as a traditional medicinal practice of Ziarat.

Interestingly, a noteworthy finding of our study is the perception held by the indigenous people, who regard Juniperus Excelsa as a living forest fossil. This appealing perspective reflects a deep-rooted connection between the local population of Ziarat and Juniperus Excelsa, transcending its immediate utility. Furthermore, our observations point to the population of Ziarat meeting many of their essential needs through the utilization of plant species prevalent in Balochistan and neighboring regions. This interdependence reflects a sustainable coexistence, where the Juniper trees play a vital role in fulfilling both the medicinal and practical requirements of the local communities.

The primary use of Juniperus Excelsa lies in its wood, serving dual purposes as a construction material and a source of fuel. This dual functionality emphasizes the resourcefulness of the juniper forest, positioning it as a valuable asset for the communities relying on it. Our findings reveal that it is the female cone that takes center stage as the primary medicinal component of the juniper tree. Across diverse traditions and practices, the female cone proves to be a versatile and essential part of local herbal medicine. This aligns with the broader ethno medicinal knowledge surrounding juniper species, where different parts of the plant are utilized for specific therapeutic purposes.

The juniper berry, identified as a female seed cone produced by Juniperus Excelsa, stands out as a particularly noteworthy discovery. Referred to as a galbulus, this cone resembles a berry but consists of fleshy, combined scales. The study reveals that residents of Ziarat mostly utilize the medicinal potential of juniper berry cones to treat coughs. Juniper berries are also associated with anti-inflammatory properties, showcasing the understanding of local communities in using them for targeted medicinal applications. This study reveals a fascinating array of methods employed by the local communities in utilizing the female cone berries.

A common method involves drying the female berries and creating a mixture that is then consumed with warm water or tea. This practice serves as evidence of the resourcefulness of the indigenous population, utilizing the therapeutic qualities of the Juniperus Excelsa to address a variety of health concerns. During winter, a concentrated syrup Derived from boiling the dried female cone berries at high temperatures emerges as a prominent remedy for chest pain. This specific application shows a

seasonal adaptation in medicinal practices, highlighting the dynamic nature of traditional knowledge as it evolves in response to environmental conditions.

Furthermore, it is also found in the study that the extraction of oil from these berries provides a valuable substance that can be combined with other oils, such as olive oil, for application to inflamed areas. The study also unveiled the use of juniper berry oil in post-circumcision care, underscoring its significance in cultural and ceremonial practices. Additionally, this oil is also utilized to heal ear pain highlighting the effectiveness attributed to juniper oil in managing this particular ailment.

Female Cone Berries Fig 1

Female Cone Berries Fig 2

Juniper Forest Zindra Fig 3

Juniper Forest Ziarat Fig 4

4. Conclusion

The current study found that indigenous people in Baluchistan use Juniperus. Excelsa extensively for a variety of reasons. The varied methods of preparing and using Juniperus excelsa's female cone berries in the Ziarat region demonstrate the depth of traditional knowledge. This dynamic interplay between cultural practices and botanical resources contributes to a more comprehensive understanding of the ethno medicinal landscape in the studied area. The massive use of this rare species suggests that it is thinning down at an alarming rate and to preserve this special forest environment, it is necessary to practice urgent conservation, sustainable usage, and secondary resource allocation.

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