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Ethnobotany of medicinal plants in the region Béni chougrane (Mascara, Algeria)

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Abstract

This herbal study was conducted in the Mascara region (Beni Chougrane), whose population is closely linked to the various natural resources. our study is to provide a floristic inventory of medicinal plants and to collect information concerning the uses Therapeutic made in said region.The results of our study have identified 72 medicinal species used by local people in traditional medicine, owned 38 families, the most common used: Lamiaceae, Apiaceae and Asteraceae, and we established a herbarium sheets for each plant. Thus it had been found the modes used in the form of decoction and infusion. The results also showed that medicinal plants are used in the following diseases: hypertension and diabetes.

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Introduction

The use of medicinal plants in therapy knows notable interest, and it is through scientific studies based on analytical methods, and the new experiments, the medical world discovers more, the well founded empirical prescriptions of medicinal plants. These last constitute an inexhaustible source of drugs for men (Handa *et al.*, 2006).

Algéria, by the richness and diversity of its flora, constitutes a real phylogenetic tank, with about 4000 species and sub-species of vascular plants, what the allows to occupy a privileged square. Among the Mediterranean countries that have a long medical tradition and traditional know-how to herba (Righi, 2008).

The importance of medicinal plants in Algeria is so undeniable that is why, high request national and international medicinal plants, the use and lawless harvesting constitute a real danger future of medicinal plants if any species plantation policy is not applied. However, the Algerian medicinal flora remains unknown until today, because on some thousands of plant species, counted medicinal species do not exceed a few tens.

Analysis of the Algerian medicinal bibliography shows that data relating to regional medicinal plants are very partial and dispersed. Similarly knowledge making is held currently by little person. Also, the expedited destruction especially by drought and the space humannatural, makes it more difficult to discover, the exploitation and backup of the potentialities of this type.

Indeed, traditional medicine has always occupied an important place in the traditions of medications in Algeria especially in mountainous and Saharan areas. The study was conducted at the municipalities of Mascara responds to this concern to bring documentation for medicinal plants.

Through a series of surveys is ethnobotany, radiotherapists in the Mascara region were interviewed, the information sought on the used plants focused on their local name, their therapists virtues and the related medical practice.

Thus, a floristic inentory was performed on four protected sites.It is very important to translate reflest knowledge in scientific knowledge in order to revalue it, keep and use it rationalyl. our ethnobotanical study is a contribution to the identification of medicinal plants used by the local population the Mascara region and the identification of ways of use in traditional Algerian pharmacopoeia.

Materiel and methods

Les Mountain of Beni Chougrane are one of the links of the western Tell oriented South-West/ North-East, bounded as East valley of Mina separates them from the mountain of Ouarsenis.West, they are extended by the mountains of Tessala et Ouled Ali. North, they are bordered by the plain of the Habra-Sig and South, by Ghriss-Mascara. In most valley of Mina which marks the limited is valley of Mebtouh, which marks the West limit, the Beni-chougrane mountains are crossed by valley El Hammam, which are built 03 large dams-tanks. The total acreage of the BNEDER en 1981 est de 2 860 km². The agricultural acreage represents 35% of this total area, course and forests account for 27% and 20 % (heavy degraded) unproductive lands.

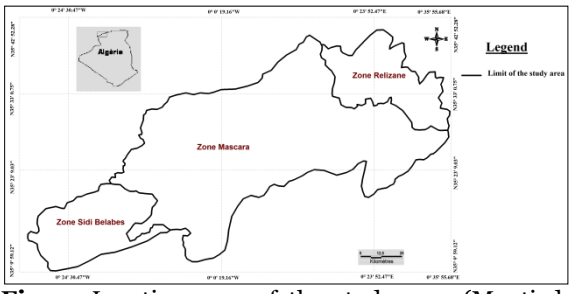

Fig. 1. Location map of the study area (Monti de Beni-chougrane).

The intervention is to identify plants of a region and to realize a herbarium, also from well know its distribution and ecological conditions of this vegetation.

Our objective is to know the traditional use of plants used by the population of semiarid as a remedy so to traditional knowledge. Our objective is to know the traditional use of our inventory mostly at the time of survey, the lack of means of transport.

The picking of medicinal plants was made on a basis of the investigation and with the help of a knower forester in the region of plants.

After the gathering of documents and the collection of information related to our work, have subdivised our methodology in two parts:

1. A survey in the Mascara region according to a sheet of inquiry prepared according to our goal (Fig1).Our investigation has touched 90 people of all ages.

2. Preparation of a herbarium according to the following procedure:

- Choice of picking area.
- Choising a day sunny.
- Preparation of material: pruner, bags, notebook, camera, press screw, journal and scale.
- Output field.
- Take several pictures for a single plant on ground with a graphic scale.
- The gathering of plants only healthy and taking photos.
- Eliminate insects and soil particles.
- Put the plants in a newspaper and then in a press screw.
- Change log after 8 hours, 12 hours, 24 hours, 3 days and after a week. Until the drying (Protected from humidity).
- Bonding of plants on paper cardboard.
- Collage of labels that includes the identification of each species.
- Keep in a box to archive and sort by alphabetical order.

Results

Sex and age class

For absolute research use of medicinal plants an investigations has been in the nearly 90 people, 60% women and 40% men (Fig. 2).

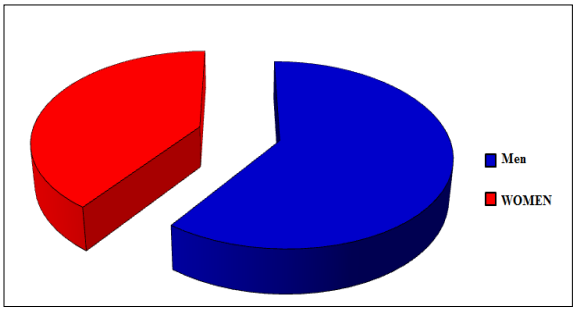

Fig. 2. Percentage of both the surveyed population.

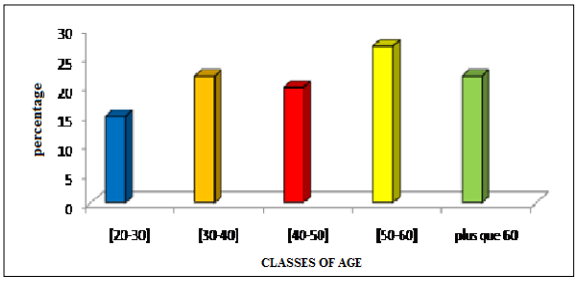

Fig. 3. The different classes of the survryed population.

The questioned population contains a miture of age groups which is distributed as 15% of this last between 30 and 40 years, 20% between 40 and 50, 27% between 50 and 60, and 22% of the population were over 60 years (Fig. 3).

Biodiversity of medicinal plants

The survey on field during the three months (February, March and April), in different areas to establish a herbarium containing 72 medical species existing in the region of Mascara (Table 1).

Table 1. List of medicinal plants in the region of Mascara.

N°	Species	Common name	Vernacular name	Families
1	*Ajuga iva* (L.) *Schreb.*	Ivette musky	Chendgoura	Lamiaceae
2	*Atractylis gummifera*	Glue thistle	Addad	Asteraceae
3	*Asphodelus ramosus* L.	Asphodel	Berouague	Xanthorrhoeaceae
4	*Ammoides pusilla (Brot.) Breistr*	False Ammi slender	Noukha	Apiaceae
5	*Arenaria serpyllifolia* L.	Wild Subline	Fatate el-hedjare	Caryophyllaceae
6	*Aristolochia clematitis* L.	Aristolochiaclematis	Berousstome	Aristolochiaceae
7	*Artemisia herba-alba*	White wormwood	Chih	Asteraceae
8	*Atriplex halimus*	Atriplex	Guetaf	Amaranthaceae
9	*Asparagus officinalis subsp. officinalis*	Asparagus	Essekoum	Asparagaceae

10	*Anacyclus pyrethrum*	Pyreher	Tigantast	Asteraceae
11	*Arbutus unedo*	Arbutus	Lendj	Ericaceae
12	*Amygdalus communis* L.	Almond	Louz	Rosaceae
13	*Anvillea radiata*	Anvillea	Nougd	Asteraceae
14	*Borago officinalis* L.	boragemedicinal	Lessane el ferd	Boraginaceae
15	*Beta vulgaris* L.	Chard	Selq	Amaranthaceae
16	*Calamintha officinalis*	Mountainsmint	Nabta	Lamiaceae
17	*Ceratonia siliqua*	Carob	Kharaube	Fabacees
18	*Citrus medica*	Cedar	Lime	Rutaceae
19	*Coriandrum sativum* L.	Coriander	Kesbar	Apiaceae
20	*Cupressus sempervirens* L.	Cypress	Sarouel	Cupressaceae
21	*Chamaerops humilis* L.	Dwarf palm	Doum	Arecaceae
22	*Cytisus spinosus* (L.) Bubani	Calicotome	Guendoule	Fabaceae
23	*Cistus albidus* L.	Cistus	Timersat	Cistaceae
24	*Citrus aurantium*	bitter oranger	El-randj	Rutaceae
25	*Daphne gnidium* L.	Garou	Lazzaz	Thymelaeaceae
26	*Echinops spinosus*	Echinops	Tassekra	Asteracees
27	*Eucalyptus globulus* Labill.	Eucalyptus	Caliptousse	Myrtaceae
28	*Foeniculum vulgare* Mill.	Fennel	Besbas	Apiaceae
29	*Fraxinus angustifolia* Vahl	CommonAsh	Derdar	Oleaceae
30	*Ficus carica* L.	Figtree	Karmosse	Moraceae
31	*Ferula communis* L.	Ferula	Kelakhe	Apiaceae
32	*Globularia alypum* L.	Globulartree	Tasselgha	Plantaginaceae
33	*Helosciadium nodiflorum (L.) W.D.J.Koch*	Sium	Ziata	Apiaceae
34	*Hordeum vulgare* L.	Barley	Chaire	Poaceae
35	*Dittrichia viscosa* (L.) Greuter	Viscous inule	Magrammane	Asteraceae
36	*Juniperus oxycedrus* L.	Juniperoxycedrus	Taga	Cupressaceae
37	*Lavandula stoechas* L.	Lavander	Halhal	Lamiaceae
38	*Marrubium vulgare* L.	White horehound	Maroukete	Lamiaceae
39	*Malva sylvestris* L.	Mallow	Khebize	Malvaceae
40	*Mentha pulegium* L.	Mintpennyroyal	Fléou	Lamiaceae
41	*Mentha spicata subsp. spicata*	Spearmint	Naànaa	Lamiaceae
42	*Nerium oleander*	Oleander	Defla	Apocynaceae
43	*Opuntia ficus-indica* (L.) Mill.	Pricklypear	Karmosse el- Nessara	Cactaceae
44	*Olea europaea*	Olive tree	Zitoune	Oleaceae
45	*Olea europaea var. sylvestris* (Mill.) Lehr	Wild olive tree	Zebboudj	Oleaceae
46	*Papaver rhoeas*	Poppy	Ben naaman	Papaveracees
47	*Populus alba* L.	White poplar	Safsaf	Salicaceae
48	*Pinus halepensis* Mill.	Aleppo pine	Snouber	Pinaceae
49	*Pistacia lentiscus* L.	Pistachio mastic	Darou	Anacardiaceae
50	*Phillyrea latifolia* L.	Filariabroadleaf	Tamtouala	Oleaceae
51	*Punica granatum* L.	Pomegranatetree	Remane	Lythraceae
52	*Quercus ilex* L.	Holmoak	Bellout	Fagaceae
53	*Quercus coccifera* L.	Kermesoak	Kerrouch	Fagaceae
54	*Reseda luteola* L.	Reseda	Acheba el barda	Resedaceae
55	*Rhamnus alaternus* L.	Materne	M'liles	Rhamnaceae
56	*Reseda alba L.*	Reseda	Danbe el- Kharoufe	Resedaceae
57	*Rosmarinus officinalis*	Rosemary	Iklil el-djabel	Lamiaceae
58	*Ruta graveolens* L.	Rue	Fedjel	Rutaceae
59	*Rubus idaeus* L.	Raspberry bush	Toute el aàligue	Rosaceae

60	*Sonchus oleraceus* L.	Sow	Molebina.	Asteraceae
61	*Stipa tenacissima*	Alfa	Halfa	Poaceae
62	*Smyrnium olusatrum* L.	Alexanders	Haiyar	Apiaceae
63	*Tetraclinis articulata* (Vahl) Mast.	Pricklycedar	Aàraar	Cupressaceae
64	*Teucrium polium*	Mountain'sPouliote	Jaada	Lamiaceae
65	*Thapsia garganica* L.	Thapsia	Dénias	Apiaceae
66	*Thymus vulgaris* L.	Thym	Zaàtar	Lamiaceae
67	*Thymelaea hirsuta* (L.) Endl.	passerine bristling	Methnane	Thymelaeaceae
68	*Urtica dioica* L.	Nettle	Heri,gue	Urticaceae
69	*Urginea maritima*	Scille	Bossila	Asparagaceae
70	*Verbena officinalis* L.	Verbenaofficinalis	Ma louiza	Verbenaceae
71	*Verbascum sinuatum*	Molenes	Meslahlendhar	Scrofulariaceae
72	*Zizyphus lotus*	Jujube	Sedra	Rhamnaceae

Diversity of families

The table above shows 72 medicinal species inventoried in the Mascara region, their name, common name, french name and their families. Result in a graphic representation (Fig. 4) of 36 families in where Lamiaceae :12,5%; Asteracees and Apiaceae 9,72%; Oleaceae 5,56; Cupressaceae and Rutaceae 4.17; Amaranthaceae, Asparagaceae, Fabaceae, Fagaceae, Poaceae, Resedaceae, Ramnaceae, Rosa-ceae and Thymelaeaceae: 2,78%; and the percentage of the rest of the families is 1.38% for each family has to know the family of Anacardiaceae, Apocynaceae, Arecaceae, Aristolochiaceae, Cactaceae, Caryophyllaceae, Cistaceae, Lythraceae, Malvaceae, Moraceae, Myrtaceae, Papaveracees, Pinaceae, Plantaginaceae, Salicaceae, Scrofulariaceae, Urticaceae, Verbenaceae, Xanthorrhoeaceae and Ericaceae.

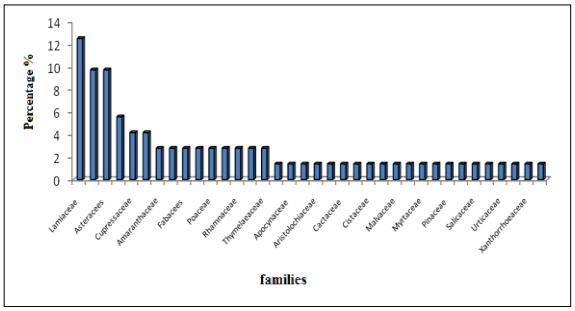

Fig. 4. Percentage of families of medicinal plants.

Traditional use of medicinal plants

For the inventory, the census of the study area plants concerned, those imported and used by the population of the region of Mascara, we had adopted a botanical presentation, the harvest period and the parts of plane used in pharmacopoeia. Thus we had integrated a photographic support, the mention of the preparation and the related application has these plants. As such we therefore adopted an airy presentation, short times with the aim to provide a sufficient description of the plant, its effect and its place in the traditional pharmacopoeia. This study allowed us to say that the family Labiatae ranks first in medicinal flora of the study area. Then come the Umbelifetae family, compositae, that are significant by their number in the flora of Algeria.

From point of view frequency n'use of medicinal plants. It found that it is very diverse. It seems that the Thym, Thuya de barbarie, Pistacia lentiscus, lavender, and the Ivette, are the most used by respondents, and those for your spontaneous species.

Table 2. frequency n'use of medicinal plants.

	Species	Parts used	Preparation	Indications
1	*Asphodelus ramosus* L.	Roots	Oily maceration	Jaundice, sore ears and like, the migraine, eczema, and warts.
2	*Arenaria serpyllifolia* L.	Whole Plant	Decoction	Kidney limestones
3	*Aristolochia clematitis* L.	Aerial Parts ans roots	Powder, Decoction	cancer,diabetes, rheumatism and muscle pain.
4	*Artemisia herba-alba*	Leaves and flowering tops	Infusion	facilitate digestion, calm the abdominal pain and vomiting, and certain diseases of the liver, vermifuge, narcotic, rheumatism, hyperglycemia, abscess, tooth, diabetes, diarrhea.

5	*Atriplex halimus*	Leaves and stems	Decoction	Removes cysts, it regulates sugar levels in the blood, lowers pressure, increasinbly itcalms the pain of colon
6	*Globularia alypum* L.	Leaves	Decoction	Stomach pain, diabetes, constipation, gout and to purify the blood, promotes urination, promotes the digestion of food and fever.
7	*Asparagus officinalissub sp. officinalis*	Roots	Decoction	Diabetes, kidney limestones, of the large colon and the jaundice.
	Stipa tenacissima	Leaves	Décoction	Baloating of colon,diabetes, hypertension, kidney pain and bladder.
9	*Borago officinalis* L.	Leaves and flowering tops	Décoction	Hemorrhoids, pain from abscesses, wound...,
10	*Beta vulgaris* L.	Leaves	Décoction	Facilitate digestion, and allergy.
11	*Atractylis gummifera*	Roots	Décoction	Contamination of fluenza , eczema the magpies.
12	*Ajuga iva* (L.) Schreb.	Whole plant	Decoction	Lumbago, jaundice, stomach pains and bowel, diabetes, hypertension, bloating of the stomach and rheumatism, intestinal worms.
13	*Urginea maritima*	Bulb	Cataplasm	Genital infection, scabies.
14	*Calamintha officinalis*	Leaves and flowring	Infusion and decoction	Abdominal pain of children and asthma, the buzzing in the ears.
15	*Echinops spinosus*	Roots	Infusion	Genital infections (after an abortion), urinaru tract infections, inflammation of the kidneys, the blood circulation.
16	*Foeniculum vulgare Mill.*	Leaves, fruit, roots	decoction	Abscesses and sores , coughs and asthma attacks, headaches, promote lactation, rules, eliminates gas bowel and calm the large colon, stomach, headache, migraine pain, treats inflammation and congestion of the breasts.
17	*Ferula communis* L.	Rod and qum		fractures; disorders digestive and bronchitis.
18	*Ammoides pusilla (Brot.) Breistr*	Leaves, flowers and seeds	Infusion	Fever children, sunburn, tonsillitis, influenza, diarrhea and belly pain, hypertension
19	*Coriandrum sativum* L.	Leaves and Fruit	Infusion	Hair loss, bloating
20	*Globularia alypum* L.	Whole plantentière	Decoction	Burns and rheumatism.
21	*Cytisus spinosus* (L.)	Flowering tops	Infusion	Scabies, trachoma.
22	*Papaver rhoeas*	Petals of flowers	Infusion and decoction	Dental abscess, measles, diseases of the eyes and eyelids, acute bronchitis and chronic,asthma, eruptive fever, rheumatism and coughs, insomnia and nervousness.
23	*Opuntia ficus-indica (L.)*	Stem and fruit	infusion ou de poudre	Diarrhea and dysentery, constipation, back pains and sycosis, inflammation of the prostate gland and intestines.
24	*Phillyrea latifolia* L.	Leaves and flowers	decoction	Cephalagies and hypertension
25	*Rubus idaeus* L.	fruits and flowers	decoction	Sore throat, colicand diarrhea
26	*Daphne gnidium* L.	Leaves, fruit and bark	decoction	Ringworm, scabies, the forks of hair and hydrocephalus
27	*Lavandula stoechas* L.	Flowering-flower pot	infusion	Eliminating intestinal worms, and thus for diabetes, asthma, eczema, parasites of the skin and to sanitise and heal wounds, diseases of respiratory (colds, bronchitis,...) , and infectious diseases (eruptive fevers in particular).
28	*Nerium oleander*	Leaves	decoction	eczema, sore knee, he calms, the dental pain, headaches.
29	*Dittrichia viscosa* (L.) *Greuter*	Leaves, flowers and roots	infusion	Calm the abdominal pain and rheumatism, gingiva, and to reduce the weight.
30	*Zizyphus lotus*	Fruit, flowers and roots	Infusion	Favors stomach ulcer, favors the elimination of urine, stimulates the appetite, hepatits.
31	*Smyrnium olusatrum* L.	Leaves, roots	decoction	rheumatism, stomach, dizziness.
32	*Sonchus oleraceus L.*	Air vertices	Infusion	Influenza, urinary tract infections and drop.
33	*Marrubium vulgare L.*	Flowering top leaf	infusion	rheumatism, bronchitis, infertility in women, painful mendtruation, diabetes, liver diseases, fall hair, and for diarrhia, headaches.
34	*Malva sylvestris* L.	Leaves, flower	infusion	constipation, inflammation of the respiratory tract, urinary tract, headache, rheumatism
35	*Mentha pulegium* L.	Flowring tops, leaves.	Powder, infection	Cough , influenza, stomach ulcer, high blood pressure, diseases of the lungs,vomiting, diarrhea.
36	*Mentha spicata*	Leaves	decoction	Calm abdominal pain is lowers blood pressure (hypertension), calm the nerves
37	*Mentha rotundifolia*	Leaves	decoction	pyodermites, les douleurs abdominales, vomissements, la toux, et les nausées
38	*Verbascum sinuatum*	Flowers (without stamens), leaves.	decoction	Urinary tract infections, diseases of the chest.
39	*Urtica dioica* L.	whole plant, leaves, roots	infusion et Decoction	Nocturnal enuresis in children, eczema, promoted the lactation, weakness, and loss of hair.
40	*Anacyclus pyrethrum*	roots	decoction	rheumatism, ifluenza.
41	*Chamaerops humilis* L.	Leaves, back and fruit, hearts	decoction	hepatitis, diarrhea and dysentery
42	*Teucrium polium*	Flowering tops,leaves and roots	decoction	Reduce fever in children, and in the treatment of diabetesn rheumatism, kidney patients, pain of intestine, cough, retention.
43	*Reseda luteola* L.	Leaves	decoction	rhuematism, vomitingt

44	*Reseda alba* L.	Flowerinf tops	decoction	Feverand calm the pain caused by the injury.
45	*Rosmarinus officinalis*	Leaves, flower	decoction	cholestérol, high blood, pressure, asthma, bronchitis, cough, headaches, digestives disorders and hepatic congestion and hepatic failure, vomiting, and to regulate and calm thr rules ; and to calm the areas
46	*Ruta graveolens* L.	leaves	infusion	Promote the rules, against intestinal worms , against ulceration gums and for neat skin from parasites.
47	*Helosciadium nodiflorum* (L.) *W.D.J.Koch*	Leaves and roots	Infusion	Kidney infections, swelling of tomach, insolation
48	*Thapsia garganica* L.	roots	Aqueous decoction or oily maceration	Muscle tears, pain in back, for hardening the hands of workers, rheumatism of the feet .
49	*Thymus vulgaris* L.	Leaves , flowring tops	infusion	Influenza, headaches, urinary tract infections of respiratory tract, stomach pains, sore teeth
50	*Thymelaea hirsuta* (L.)	Stems and leaves	Cataplasme	Pus, abscesses
51	*Verbena officinalis L.*	leaves	Decoction	To calm the nerver, and to wash the intestines again born
52	*Hordeum vulgare L.*	seeds	Infusion	Of intestinal disorder, used to help the functionning kidney, and in the case of cyst, lithiasis, lumbago, gout
53	*Olea europaea*	Leaves and fruits	Infusion	Cough, inflammation laryngitis, hair loss, fever and diabetes, rheumatism, cholesterol, and soothe the pain of the ears
54	*Olea europaea var. sylvestris* (Mill.) Lehr	leaves	Infusion	Stomatitis and limestones kidney, eczema and thrush .
55	*Rhamnus alaternus* L.	Stems and leaves	Decoction	Jaundice,hepatitis, pain sciatica, purgative soft
56	*Punica granatum* L.	Fruits	Decoction	Pain and ulcer of stomach, hair, diarrhea, appetite, and anemia
57	*Ficus carica* L.	leaves, latex an fruit	Decoction	dia bronchitis, and facilitates digestion,
58	*Arbutus unedo*	Leaves and fruits	Infusion	diarrhea, hypertension and anemia.
59	*Amygdalus communis* L.	Leaves and fruits	Decoction	Burns, stomach inflammation, coughs and palpitations, and againts the fall of hair , diabetes.
60	*Citrus medica*	fruits and flower	decoction and Infusion	Strengthen nails, angina and stomatitis, migraine, headaches, fever, intestinal and forrefreshing, maintenance of face parasites
61	*Citrus aurantium*	Fruits, bark on the fruits , leaves	Infusion	Unclog the intestines
62	*Juniperus oxycedrus* L.	fruits, bark and leaves	Decoction	cystitis, and colon pains, rheumatism and fever
63	*Ceratonia siliqua*	fruits	Infusion	To treat the fiagile stomach wall, enteritis of infants,and to reduce appetite, the fruitd of this tree are used against diarrhoea
64	*Cupressus sempervirens* L.	fruit, leaves, branches	Decoction	Cough, nocturnal incontinence of urine in children, diarrhea and burns, mucous flow, hemorrhoids, passive hemorrage
65	*Quercus ilex* L.	leaves, acorns and bark	Decoction and Infusion	Bleeding, ailments of the skin, gastralgias, diarrhea, digestive lazines and weakness, hemorrhoid, fever
66	*Quercus coccifera* L.	leaves	Infusion	Borage, stomach ulcer,
67	*Pistacia lentiscus* L.	Leaves, fruits, putty	Decoction	Pain stomach, bloating and constipation, pain in the ears, dental doubters, cough
68	*Eucalyptus globulus* Labill.	leaves	Decoction and Infusion	Clean up the respiratoiry tract, fever, bronchitis, flu, rheumatism, spasmodic cough
69	*Fraxinus angustifolia* Vahl	Leaves, bark and seeds	Decoction	Hémorrhage, stool and against intestinal parasit control
70	*Populus alba* L.	leaves, buds, bark	Dceoction	rheumatism, flu, diseases of the kidneys and bladder, and against catarrhs of the respiratory tract, against intermittent fevers.
71	*Pinus halepensis* Mill.	bark	Decoction	Abdominal pain, stomach ulcer, indigestion
72	*Tetraclinis articulata*	Leaves, bark	Decoction	Stomach ulcer, eczema, diarrhea, fever and bronchitis

For parts used in the study area, and follwup to the relationship we have recorded the sheets comprising among the most used parts, second by stems puff, then fruit and underground parts. Although the results show that the leaves are the most used, we noticed the field, users tend tore the whole plant instead look only at the desired part, knowing that there is a relationship between the used part of the plant exploiled and the effect of this mode of operation on its existence. For the method of preparation the decoction is the most frequent method of preparation. It is second by powdered prparation and infusion. Other modes (Poultice, maceration, fumigation drops and others) come in third place.

Conclusion

The frequency of use of medicinal plants in the region of Mascara is closely linked to the profile of respondents. Young people compared to the elderly, generally do not know the names or the utility of much of the plant species. Both sexes share some knowledge with a slidht advantage especially in the older women. The analysis of the results obtained by this study allowed us to identify medicinal plants the most used in the Mascara region. Among these species are the representatives Lamiaceae (*Calamintha officinalis, Lavandula stoechas* L.*, Marrubium vulgare L., Mentha pulegium* L.*, Mentha spicata subsp. Spicata, Teucrium polium, Thymus vulgaris* L.*, Rosmarinus officinalis*) and Asteraceae: visc-ous mule, cupressacea (*Tetraclinis articulata*) who are the most used.

The plan of severe operation whereby, numerous species are exposed can lead a scarcity and bu disappearance, is the caseof (*Tetraclinis articulata, Thymus vulgaris, Ajuga iva, Rosmarinus officinalis. Pistacia lentiscus* etc). It also notes that other relatively abundant plants, are very requested in the region.

He results also showed that medicinal plants are widely used in deseases of the digestive tract. These are known by their phytoherapeutiques effects, antispasmodic, anti-diarrhoeal, stomachic, rheumatism, and chronic diseases such as hypertension and diabetes.

It was noted that the most common usage pattens are decoctions and infusion. The outputs field have enabled us to make a herbarium containing 72 medicinal species, nevertheless residents have cited more than 120 species extant species in the Mascara region. Which involves the degradation of vegetation cover due to several factors:

- Uncontrolled grazing
- Illegal harvesting od medicinal plants by the inhabitants of this region.
- Lack of a control that preserves endangered plants.
- Climatic conditions.

For that purpose and to keep the rest of the heritage, can say that the culture of medicinal plants,and neither regulation of harvesting of spontaneous plants could reduce the pressure on medicinal species most used in traditional pharmacopoeia. finally, whatever the resuls, this remains a work of census and description of use of medicinal plants in region of Mascara, but this test needs to be developed. With this modest work, we hope that we have contributed to the preservation of knowledge make, and read practices traditional medicinal plants in the region of Mascara.

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