

PLANTS OF ALGERIAN SEMI-ARID REGIONS USED FOR THE TREATMENT OF GASTRO-INTESTINAL DISORDERS

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ABSTRACT

A great variety of medicinal plants grows in the semi-arid region of El-Bayadh (South – West of Algeria). Among this flora, some species are traditionally used by local populations for the treatment of gastro-intestinal disorders. We describe in this paper, 62 species (29 botanical families) of these plants, selected after an ethnopharmacological survey in El-Bayadh district.

Key words: medicinal plants, gastro-intestinal disorders, semi-arid zones, El-Bayadh, Algeria.

RESUME

Une grande variété de plantes médicinales pousse dans la région semi-aride d'El-Bayadh (Sud-Ouest Algérien). Parmi cette flore, certaines espèces sont traditionnellement utilisées par les populations locales pour le traitement de troubles gastro-intestinaux. Dans cet article, nous décrivons 62 espèces (29 familles botaniques) de ces plantes, sélectionnées après une étude ethnopharmacologie dans la région d'El - Bayadh.

Mots-clés: plantes médicinales, troubles gastro-intestinaux, zones semi-arides, El-Bayadh, Algérie.

I. INTRODUCTION

According to the World Health Organisation (W.H.O), phytotherapy is an important alternative in health treatment in most countries [1, 2]. Algeria, rich in indigenous herbal resources which grow on its varied topography and under changing climatic conditions permitting the growth of almost 3000 plant species. In the semi – arid regions, local traditional pharmacopoeia continues to be an important source of remedies for primary healthcare, so the region

affords ample scope for studies concerning various aspects of folk medicine.

Continuing our effort to provide a data base for traditional health practices and to research bioactives substances from medicinal plants of South – West Algeria [3 - 8], we present in this communication the result of the study on ethnomedicine of El - Bayadh district for the treatment of gastro-intestinal disorders: digestives, esophageal, colonic and rectal.

II. RESULTS AND DISCUSSION

The traditional uses of medicinal plants for the treatment of gastrointestinal disorders were selected on the basis of an ethnopharmacological survey of El Bayadh district [(Fig. 1), area of 70539 Km² between 31° and 34° North latitude and 0° and 2° East longitude [9]], through interviews according to our previous works [3, 6].

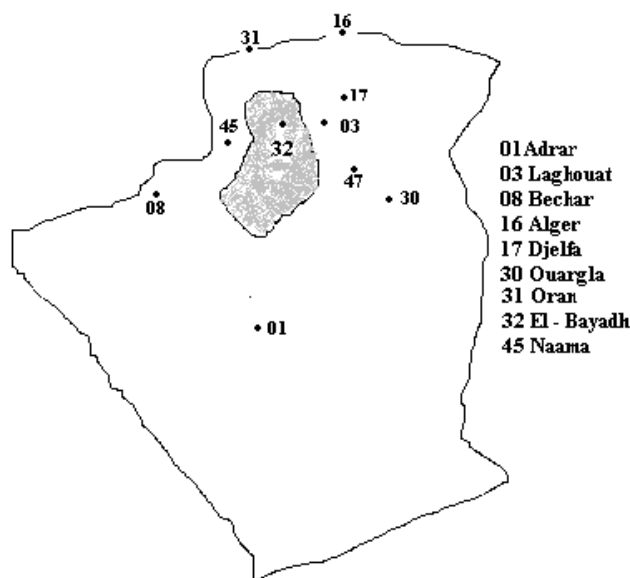
The medicinal plants used (62 species belonging to 29 families) are ordered alphabetically by botanical families, followed by botanical name, local name and plant parts used by the local inhabitants (Table 1).

Specimens of listed plants were authenticated by referring to the herbarium of the "Direction de l'agriculture de la wilaya d'El Bayadh". Literature [10, 11] was consulted to verify the taxonomical identity of plants.

The Asteraceae family predominates with 7 species, followed by Apiaceae (6), Fabaceae (6), Labiaceae (5), Rosaceae (4) and Anacardiaceae (3), represent altogether 50 % of the quoted plants.

The decoction is the most prevalent method of preparation of plant remedies, probably because of its simplicity, the treatment is repeated 2 - 3 times / day.

Fig. 1: The study area of El Bayadh - Algeria –



Families / Species	Local name	Parts used
AMPELIDACEAE		
<i>Vitis vinifera</i> L.	dalia	Fr
ANACARDIACEAE		
<i>Pistacia atlantica</i> Desf.	Lebtom	Fr
<i>Pistacia lentiscus</i> L.	tharw	L
<i>Rhus oxyacantha</i> Sch.	jedari	Rt
APIACEAE		
<i>Carum carvi</i> L.	karwiya	Fr
<i>Coriandrum sativum</i> L.	qosber	Ap
<i>Cuminum cyminum</i> L.	kemoun	Fr
<i>Ferula narthex</i> L.	hentit	R
<i>Foeniculum officinalis</i> All.	besbas	L
<i>Pimpinella anisum</i> L.	habet hlawa	Fr

Families / Species	Local name	Parts used
ASTERACEAE		
<i>Anacyclus valentinus</i> L.	guertofa	Ap
<i>A. herba-alba</i> Asso.	chih	Ap
<i>Atractylis gummifera</i> L.	adad	Rt
<i>Atractylis humilis</i> L.	knoud	Rt
<i>Carthamus tinctorius</i> L.	zâfrane	S
<i>Erigeron canadensis</i> L.	djouâda	Ap
<i>Rhoelpenea linie</i> Bull.	laâdid	L
CACTACEAE		
<i>Opuntia ficus-indica</i> L.	karmos ensara	Fr
CAPPARIDACEAE		
<i>Capparis spinosa</i> L.	kebar	L
<i>Cleome arabica</i> L.	gefena	Wp

Families / Species	Local name	Parts used
RUTACEAE		
<i>Ruta chalepensis</i> L.	feyjel	L
SOLANACEAE		
<i>Capsicum annuum</i> L.	lahror	Fr
<i>Lycopersicum esculentum</i> Mill	Tamatich	Fr
TAMARICACEAE		
<i>Tamarix gallica</i> L.	leârich	Fr, B

Families / Species	Local name	Parts used
TERNSTROEMIACEAE		
<i>Thea sinensis</i> Sims.	latay	L
THYMELEACEAE		
<i>Daphne gnidium</i> L.	lazez	L

Families / Species	Local name	Parts used
CHENOPODIACEAE		
<i>Haloxylon articulatum</i> Bon.	remth	L
CUCURBITACEAE		
<i>Cucurbita pepo</i> L.	kabouya	S
<i>Ecballium elaterium</i> Rich.	fegous lehmîr	Fr
CUPRESSACEAE		
<i>Juniperus oxycedrus</i> L.	taga	L
<i>J. phoenicea</i> L.	arar	L
FABACEAE		
<i>Cerantonia siliqua</i> L.	kharoub	Fr
<i>Ervum lens</i> L.	âdes	S
<i>Ononis natrix</i> L.	henat libel	Ap
<i>Robinia pseudacacia</i> L.	mâzhar	F
<i>Trigonella foenum-graecum</i> L.	helba	S
<i>Vicia faba</i> L.	foul	S
FAGACEAE		
<i>Quercus ilex</i> L.	kerouche	Fr
IRIDACEAE		
<i>Crocus sativus</i> L.	zâfrane hor	F
GERANIACEAE		
<i>Erodium guttatum</i> Desf.	regam belout	Ap
LABIACEAE		
<i>Ajuga iva</i> L. Schreb.	chentgoura	Ap
<i>Lavandula stoechas</i> L.	halhal	Ap
<i>Mentha pulegium</i> L.	fliyo	Ap
<i>Phlomis biloba</i> Desf.	khayata	L
<i>Thymus capitatus</i> L.	zâtar	L

Families / Species	Local name	Parts used
LAURACEAE		
<i>Cinnamomum cassia</i> Blum	qarfa	B
<i>Laurus nobilis</i> L.	rand	L
LINACEAE		
<i>Linum usitatissimum</i> L.	kettan	S
LYTHRACEAE		
<i>Lawsonia inermis</i> L.	henna	L
MORACEAE		
<i>Morus alba</i> L.	tut	Fr
<i>M. nigra</i> L.	tut lakehal	Fr
MYRTACEAE		
<i>Eugenia caryophyllata</i> Thumb	qronfel	F
<i>Myrtus communis</i> L.	rayhane	F
PEDALIACEAE		
<i>Sesamum indicum</i> D.C.	djendjelene	S
PIPERACEAE		
<i>Piper cubeba</i> L.	kebaba	Fr
<i>P. nigrum</i> L.	hab elkahla	Fr
POACEAE		
<i>Stipa tenacissima</i> L.	halfa	L
POLYGONACEAE		
<i>Rumex gallicus</i> Rech.	homaida	L
ROSACEAE		
<i>Prunus amygdalus</i> Stok.	lawz	Fr
<i>P. domestica</i> L.	berqoq	Fr
<i>P. persica</i> L.	khokh	L
<i>Rosa canina</i> L.	ward	F

Ap (Aerial parts), B (Bark), F (Flower), Fr (Fruit), L (Leaf), R (Resin), Rt (Root), S (Seed), Wp (Whole plant).

Table 1: Medicinal plants used for treatment of gastro-intestinal disorders in El - Bayadh district

CONCLUSION

62 plants of folk drugs were found to be currently used for treatment of gastro-intestinal disorders in El - Bayadh district, have been identified. These plants are distributed in 29 botanical families mostly in Asteraceae (7), Apiaceae (6), Fabaceae (6), Labiaceae (5), Rosaceae (4) and Anacardiaceae (3), all other families were represented by two or one species each.

The information in this report will help in preserving knowledge on medicinal plants and should direct biologist and phytochemist in the search for promising species and bioactive constituents. Thus traditional medicine is a valuable source for the development of new effective therapeutic agents.

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