Ethno Botanical Study of Wild Edible Plants in Adola District, Southern, Ethiopia

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ABSTRACT

This research was conducted in Adola districts in southern Ethiopia to identify indigenous knowledge related to use of wild Edible plants and their contribution to household in Adola district. The study was carried out between January to March 2019. Ethnobotanical data were collected by interviewing 120 informants (92 males and 27 females) aged 25-95 years and of them18 were key informants. Ethno botanical knowledge of plants used for food. The datas were collected using structured and semi-structured question through face to- face interaction with the informants. The collected data were arranged by using spss software to analysis the descriptive of demographic detail to identify knowledge of informants related to edible plants. Quantitative analytical tools for ethnobotanical methods including simple preference ranking and direct matrix ranking were employed. Ethnobotanical knowledge held by different informants in the study area was compared. Forty six (46) species with 41 genera and 35 families of wild edible plants were documented. Ancanacardiaceae, Euphorbiaceae, Flacourtiaceae by 3(8.6%) species were the highest edible plants species followed by Myrtaceae, Asteraceae, Rubiaceae, Rutaceae and Sapindaceae with 2 species (5.7%). In the district the fruits (72.9%) were the most edible plant part and mostly taken as raw. Growth forms of the plants were trees (30.4%) and the highest collection season of edible plants was wet season (61%). Most of the reported wild edible plant species were reported for more than three uses. Agricultural expansion was the principal factor of threatening Wild edible plant in the study area. Better to cultivate and management of edible plants inhome garden and needs to further study of common edible plants species.

***Key words**: Adola, Ethnobotany, wild edible, seasonal*

INTRODUCTION

Wild edible plants defined as plants that grow spontaneously in self-maintaining populations in natural or semi-natural ecosystems and can exist independently of direct (Heywood, 1999). They are the species that are neither cultivated nor domesticated, but they are available from their wild natural habitat and used as sources of food (Beluhan and Ranogajec, 2011). Rural communities that lack resilience and are highly sensitive to environmental perturbations tend to rely on a range of strategies to minimize system vulnerability (Davies, 1993). Such practices are still prevalent among rural and tribal communities in many parts of the world (Binu, 2010; Bhogaonkar *et al.*, 2010). Indigenous peoples of different localities in the country have developed their own specific knowledge to use, manage and conserve of plant resources (Pankhrust, 2000).

There are four major areas where in underutilized species can make significant contribution to sustainable agriculture, namely, (1) food security and better nutrition, (2) increased income for the rural poor (through medicinal values and sale for food), (3) ecosystem stability and(4) cultural diversity associated with local food habits and religious and social rituals (Zeledon, 2006). The use of these wild food plants is very similar and characterized by a high interest in wild fruits, seeds and low appreciation of wild greens and reemphasized the cultural and dietary importance of wild edible plants, also strengthening their nutraceutical value, interest as functional foods, and contribution to a healthy diet (Morales *et al*., 2017, 2014; Sanchez Mata *et al*., 2012).

Wild edible plants are the recognition of the value of biodiversity for improved nutrition is one component of the shifting paradigm in approaches to malnutrition (Toledo and Burlingame, 2006). Over, 20,000 wild edible plants species found in the world (Abbasi *et al*., 2013). He explains that only 30 plants have been used to meet the 90% world's food requirement. Ethnobotanical investigations on wild edible plants explain that more than 7,000 species have been used for food in human history (Grivetti and Ogle, 2000). It can be a good alternative source of food demand and contribute toward food security, nutrition, health and income generation (Kumar *et al*., 2014). Specifically, wild edible plants can potentially act as: a safety net against hunger; a rich source of nutrients for improved dietary diversity and quality and a basis for strengthening local food systems and environmental sustainability (Frison *et al*., 2006).

For example, in rural settlements where vegetable cultivation is not practiced and market supplies are not organized the local inhabitants depends on indigenous vegetables either cultivated by themselves or collected from wild (Mishra *et al*., 2008). Those Wild edible vegetables are grown for multiple uses and significant economic potential (Hughes and Ebert, 2011)and it is well-adapted to local agro ecological conditions, are hardy and able to tolerate harsher and more difficult environments due to their short growth cycle (Maurya *et al*., 2007). The nutritional value of the vegetables are higher than cultivated vegetables (Orech *et al*., 2007) such as, Moringa oleifera which is readily available and grows in Sub-Sahara Africa and used to improve iron and vitamin A status of the populace (Nnam, 2009).

Wild edible plants has a role in closing food gaps during periods of drought or scarcity and play an important role in maintaining livelihood security for many people in developing countries (Afolayan and Jimoh, 2009). There was renewed global interest in documenting ethnobotanical information on wild edible food sources (Bharucha

and Pretty, 2010). Adola is one of the districts which are known by high plant biodiversity as well as cultural diversity of using wild edible plants. But no related study of edible plant has been conducted in the study site and undocumented transmitted orally from generation to generation. Therefore this study used to identify the type and number of plant species used as source of edible plants, to investigate the contribution of edible plants to consumption and income generation, to document plant parts and modes of preparation and management of plants.

MATERIALS AND METHODS

Description of the Study Area

This study was conducted in Adola district in Guji zone, Southern Oromia, which is located 468 km away from Addis Ababa to the South. The location of the district is between 5^{o}44'10"N- 6^{o} 12'38"N and 38^{o} 45'10"E - 39^{o} 12'37"E (Figure 1). It has a total area of about 1401km^{2}. Most topography of the district is characterized by ups and down arrangement. Moreover, it has land surface with an elevation ranging from 1500 to over 2000 meters (Aschalew Shiferaw, 2014). The major soil of the district is Nitosols (red basaltic soils) and Orthc Acrosols. The percentage coverage of the each soil is Red soils 80%, Brown soil 15% and Black5% (Aschalew Emire and Zebene Asfaw, 2018). The district is characterized by three agro climatic zones, namely high land, midland and lowland, highland (locally known as Bada) and midland (locally known as Bada dare) lowland (locally known as Gamojji). The percentage coverage of each climate zones are highland (11%humid), midland (29% sub humid) and lowland (60% Dry arid) and the type of rainfall is bi-modal with longest rain season that has the maximum rainfalls which falls between 1200-1800mm annually and the shortest rainfalls records between 800- 1200mm with an erratic distribution patterns (Aschalew Emire and Zebene Asfaw, 2018).

High forests, broad-leafed forests, woodland, bush and shrub land, grass land and plantation trees are available in the district. Wood land is the most common type of natural vegetation in the area. The most dominant tree species are *Ficus sur, Ficus vast,Cordia africana, Croton macrostachyus, Abezia gummeferia, Mellitia furrigeua* (Aschalew Emire and Zebene Asfaw, 2018). The total Population of district is 130, 492 (64152 females and 66340 Males) (CSA, 2007). Agriculture is the main economic activities of the peoples' living in the district and the majority of the rural peoples are engaged in crop cultivation and livestock rearing. The most widely cultivated crops in the district are Wheat (*Triticum aestivum)*, Barley (*Hordeum vulgare*), Maize (*Zea mays)*, Sorghum (*Sorghum bicolor*), fruits, and vegetables. One of the major cash crops produced in the district is coffee which is organic in nature, high quality coffee and supply to the central coffee market (Aschalew Emire and Zebene Asfaw, 2018).

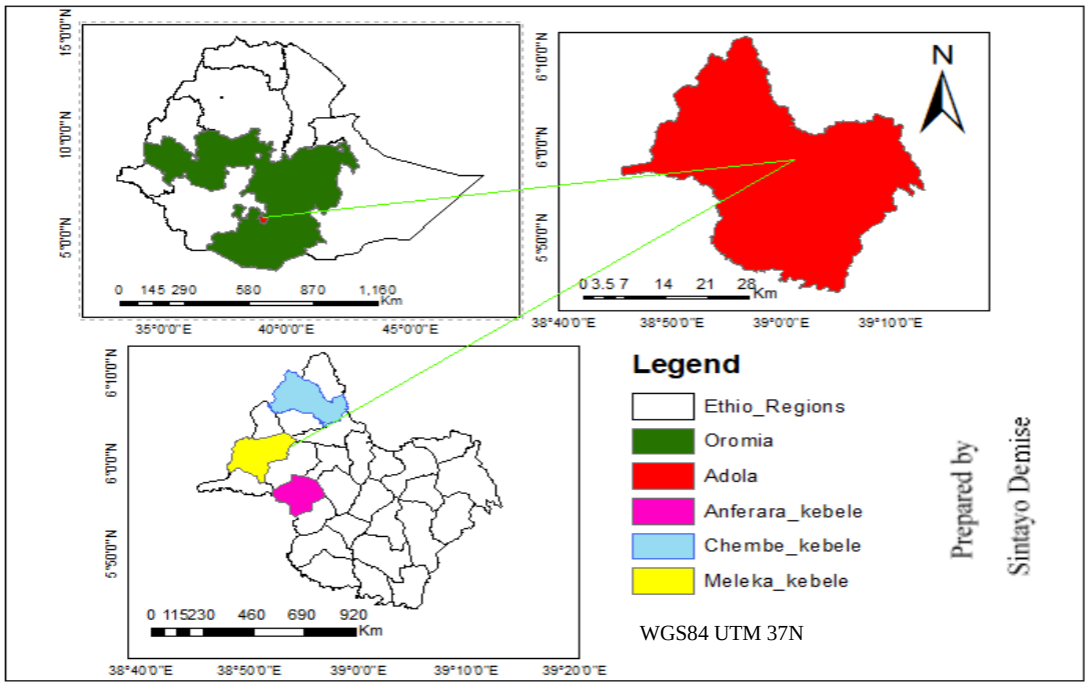

Figure 1 Map showing Adola district and study kebeles

Ethnobotanica Data collection

Ethnobotanical data were collected from January to March 2019. From the 28 kebeles in the district, depend on the information collected from agricultural office with the assistance of local administratives and elders, purposively three kebeles Maleka from high land, Anferera from midland, and Chambe from lowland were selected based on potential availability of edible plants and the availability of the users for the best representative for obtaining the wild edible plants and related knowledge. The data were collected by interviewing 18 key informants and sample sizes of 102 household were calculated by using the formula (Espinosa *et al.*, 2012) .= and the survey of these households were employed by simple random sample by tossing the coin to select specific households (Martin, 1995) and collecting information was depending on 1) each household should have knowledge about plants, 2) household must be resident of the selected area. Both qualitative and quantitative data were collected through key informants' semi-structured interviews, guided field walks, demonstrations, market survey and focus group discussions. The semi-structure interviews were delivered with the help of pre-prepared questionnaires in an English language and translated to Afaan Oromoo language. The specimen were collected and identified the plants that cited by informants and not identified in field were collected, numbered, pressed and dried for identification. Preliminary identification was done in the field and plants not identified in field were identified at an Ethiopian Biodiversity Institute Herbarium.

Data Analysis

Both qualitative and quantitative analytical tools were used for data analysis. Percentage frequency method of data analysis was employed to summarize some of the descriptive ethnobotanical data obtained from the interviews on the surveyed wild edible plants and associated knowledge. Microsoft Excel 2007 spread sheet was employed for organizing some ethnobotanical data and socio economic data were analyzed by SPSS software package.

Preference ranking was performed and analyzed most popular edible plants, common plants, and threating factor by using preferring ranking and direct matrix ranking of specific plants.

RESULTS AND DISCUSSION

Diversity of Wild Edible Plants

The result revealed that a total of 46 wild edible plants representing 35 family and 41 genera used as edible plants in the study area were recorded. Out of the collected plant species *Anacardiaceae, Euphorbiaceae, Flacourtiaceae* families were represented by 3 species (8.6%) were the highest wild edible plants followed by *Myrtaceae, Asteraceae, Rubiaceae, Rutaceae and Sapindaceae* with 2 species (5.7%) in the study area (Table 1). The study done in west shoa by (Feyisa Debela et *al.*, 2010) a total of 37 wild edible plants were identified. In India by (K.C. Kiran, 2019**)** reported 147 plant species of wild edible plants belonging to 66 families were documented and in Pakistan by (Kayani S.*et al.,* 2015) reported 47 wild edible plants belonging to 23 Families and 32 genera were identified.

Table 1 Potential distribution of local name, scientific name, habit, part used, season of collection and Preparation mode of WEPs in Adola district.

No.S			LocalName	Habit	Pu	Season		
1	*Ficus sur*	*Moraceae*	Harbuu	H	Fr	D	Ripe fruit eaten fresh	SD 001
2	*Opuntia ficus-indica (L.) Miller.*	*Cactaceae*	Adamii	sh	Fr	D	Ripe fruit eaten fresh	SD 010
3	*Flacourtia indica*	*Flacourtiaceae*	Hagalaa	sh	Fr	D	Ripe fruit eaten fresh	SD 022
4	*Ipomoea hildebrandtii Vatke*	*Convolvulaceae*	Amborokke	sh	Fr	W	Ripe fruit eaten fresh	SD 026
5	*vepris dainelli*	*Rutaceae*	Arabee	T	Fr	W	Ripe fruit eaten fresh	SD 011
6	*Balanites aegyptiaca*	*Balanitaceae*	Baddanii	T	Fr/ L	W	Ripe fruit eaten fresh	SD 023
7	*Syzygium guineense*	*Myrtaceae*	Baddesaa	T	Fr	W	Seeds are eaten fresh	SD 031
8	*Dioscorea bulbifera L.*	*Dioscoreaceae*	Barodaa	CL	Tu	W	tuber/root are cooked	SD 008
9	*Pappea capensis Eckl and Zeyh*	*Sapindaceae*	Biiqa	T/Sh	Fr	W	Ripe fruit eaten fresh	SD 015
10	*Blepharispermum villosum*	*Asteraceae*	Boniya	sh	sht	W	Ripe fruit eaten fresh	SD 018
11	*Ziziphus mucronata*	*Rhamnaceae*	Buqunqura	T/Sh	Fr	W	Ripe fruit eaten fresh	SD 005
12	*Haplocoelum foliolosum*	*Sapindaceae*	Canaa	T	Fr	W	Ripe fruit eaten fresh	SD 009

13	*Rhus natalensis*	*Anacardiaceae*	Dabobessa	T	Fr	D	Ripe fruit eaten fresh	SD 012
14	*Bridelia micrantha*	*Euphorbiaceae*	Riga arbaa	Sh	Fr	D	Ripe fruit eaten fresh	SD 013
15	*Tragia pungens (Forssk.) Muell*	*Euphorbiaceae*	Doobii	sh	Fr	W	Ripe fruit eaten fresh	SD 019
16	*Pittosporum viridiflorum Sims.*	*pittosporaceae*	Gaallo	T/Sh	Fr	W	Ripe fruit eaten fresh	SD 030
17	*Colocasia esculenta (L.)*	*Araceae*	Goodarree	H	Tu	W	tuber/root are cooked	SD 036
18	*Syzygium guineense*	*Myrtaceae*	Gootuu	T/sh	Fr	D	Ripe fruit eaten fresh	SD 027
19	*Dovyalis abyssinica*	*Flacourtiaceae*	Akoku	Sh	fr	W	Ripe fruit eaten fresh	SD 037
20	*Turraea hollistii*	*Meliaceae*	Hirqaqamu	T/Sh	Fr	W	Ripe fruit eaten fresh	SD 040
21	*Sclerocarya birrea.Hochst.*	*Anacardiaceae*	Hudha	H	Fr	W	Ripe fruit eaten fresh	SD 046
22	*Galiniera coffeoides*	*Rubiaceae*	Kudhumi	T	Fr	D	Ripe fruit eaten fresh	SD 007
23	*Urtica simensis Steudel*	*Urticaceae*	Laalesa	H	L	W	Leaves are cooked	SD 014
24	*Phoenix reclinata*	*Arecaceae*	Meexii	T	Fr	D	Ripe fruit eaten fresh	SD 025
25	*Ficus sycomorus*	*Moraceae*	Odaa	T	Fr	D	Ripe fruit eaten fresh	SD 038
26	*Amaranthus caudatus*	*Amaranthaceae*	Raafuu	H	Sht	W	Leaves are cooked	SD 018
27	*Vernonia auriculifera Hiern*	*Assteraceae*	Saraji	T/Sh	Fr	W	Ripe fruit eaten fresh	SD 032

28	*Boletus edulis Bull.ex fries*	*Boletaceae*	Shophaa	H	wp	W	whole part cooked	SD 029
29	*Eriosema cordifolia Hochist*	*papilionaceae*	Silinga	H	Tu	W	tuber/root are cooked	SD 043
30	*Physalis peruviana*	*Solanaceae*	Subba ruufoo	H	Fr	W	Ripe fruit eaten fresh	SD 045
31	*Carissa edulis*	*Apocynaceae*	Agamsa	Sh	Fr	W	Ripe fruit eaten fresh	SD 042
32	*Embelia schimperi*	*Myrsinaceae*	Hanqu	T/Sh	Fr	D	Ripe fruit eaten fresh	SD 006
33	*Rumex nervosus*	*Polygonaceae*	Dhangago	T	sht	W	Leaves are cooked	SD 002
34	*Mimusops kummel A.*	*Sapotaceae*	Qolati	T	Fr	D	Ripe fruit eaten fresh	SD 004
35	*Cordia africana Lam.*	*Boraginaceae*	Wadeessa	T	Fr	W	Seeds are eaten fresh	SD 017
36	*Rosa abyssincia*	*Rosaceae*	Goraa	Sh	Fr	D	Ripe fruit eaten fresh	SD 024
37	*Dovyalis abyssinica*	*Flacourtiaceae*	Dhugoo	T/Sh	Fr	D	Ripe fruit eaten fresh	SD 015
38	*Brucea ferruginea*	*Simaroubaceae*	Hadhawwaa	T/Sh	Fr	D	Ripe fruit eaten fresh	SD 026
39	*Rytigynia neglecta*	*Rubiaceae*	Miqee	Sh	Fr	D	Ripe fruit eaten fresh	SD 020
40	*Pyrenacantha malvifolia*	*Icacinaceae*	Burii	H	R	W	tuber/root are cooked	SD 016
41	*Cyphiaglandulifera Hochst. ex A. Rich*	*Lobeliaceae*	Kurtee	H	Tu/L	W	tuber/root are cooked	SD 021
42	*Momordica foetida*	*Cucurbitaceae*	Suruphaa	H	Fr	W	Ripe fruit eaten fresh	SD 035

43	*Acanthus eminens C.B.Clarke*	*Acanthaceae*	Sakarroo	sh	nec	W	flowering nec used	SD 028
44	*Teclea nobilis Del.*	*Rutaceae*	Hadheessa	T	Fr	D	Ripe fruit eaten fresh	SD 041
45	*Ricinus communis*	*Euphorbiaceae*	Guloo	T/Sh	Fr	W	Seeds are eaten fresh	SD 033
46	*Rhus vulgaris*	*Anacardiaceae*	Xaaxessaa	T	Fr	D	Ripe fruit eaten fresh	SD 044

***Key**:Habit:Herb(H),shrub(sh),Tree(T),climber(cl),Partused(pu):Shout(sht),Tuber(Tu),fruit(Fr),leaf(L),Nector(ne), wholepart(wp), Season: wet(W), Dry(D) and preparation method of Wild edible Plants in Adola district.*

Part Used Of Wild Edible Plants

The finding reveaved that widely used plant parts of wild edibles by the local people were fruits, tubers and leaf found the most widely used plant parts and a total of six parts used of wild edible plants were identified in the study area. The fruits (72.9 %) were the highest mostly edible plant parts followed by Tubers (10.3%), leaf (6.3%), young shoots (6.3), all part (2.1%), and nector (2.1%) were the edible parts in the study area (Figure 2). This may be the district more known by natural vegetation and large edible fruits were exist and managed by local communities. The finding in line with the study of (Shemsu Ligani *et al., 2016*) reported that fruits (79.31%) were mostly edible plant parts followed by young shoots (6.90), tubers and fruits (3.45%), young shoots and fruits (3.45%) were the major edible plant parts. Another study done in Ethiopia by (Getu Alemayehu, 2017; Atinafu Kebede *et al.*, 2017) expressed fruits were the highest edible plant parts.

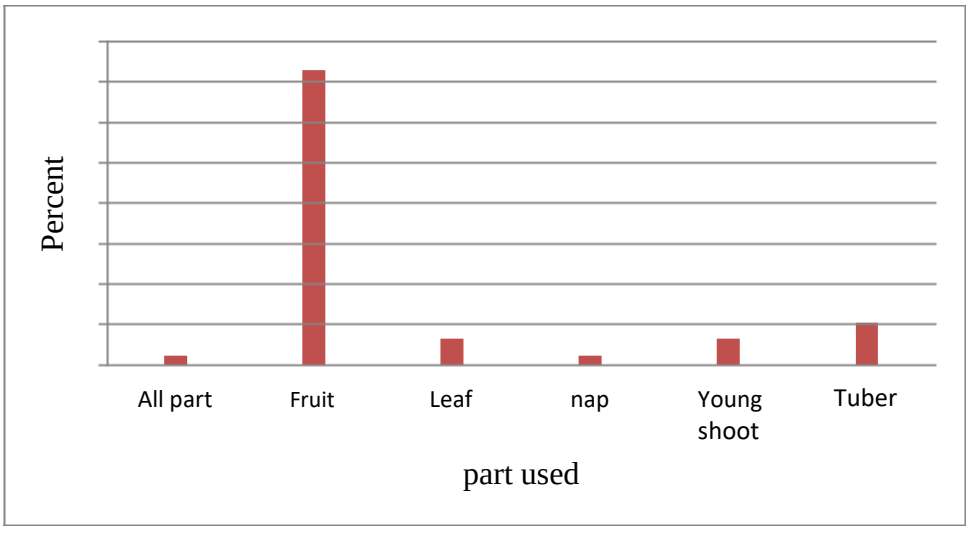

Figure 2 Percentage and part used distribution of wild edible plants in study area

Seasonal Collection of Wild Edible Plants

The collection of Wild edible plants were different depends on the maturity and availability of plant species in different season in the year. The result revealed that the collection of edible plants in the study area were wet and dry season. Of the collected edible plants around 61% of wild edible plants collected in wet season while 39% of the wild edible plants were collected in dry season (Table 1).This finding in line with the study of (Kiran K.C.*et al.*, 2019) which reported the peak season of available of WEPs is in the rainy season in the different habitats. The study done in Ethiopia consistent with the study of (Tilahun Teklehaymanot and Mirutse Giday, 2010) reported the majority of wild edible plants gathered and consumed from March to November which was rainy seasons and most of the plants flower and fruit time.

Habits of Wild Edible Plants in the Area

The current finding revealed that the growth habits of wild edible plants of the study area were dominated by Trees (30.4%) and shrubs (26.1%) followed by herbaceous forms (21.7%) tree or shrub growth forms (19.6%) and climbers (2.2%) (Figure 3).The finding similar with the study of (Atinafu Kebede *et al.*, 2017; Teklehaymanot and Giday, 2010; Tigist Wondimu *et al.*, 2006) reported growth form of wild edible plants tree followed by shrubs; Another study done in Pakistan by (Kayani, S *et al*., 2015)showed that use of wild edible plants reported growth

forms trees(55%) were the highest followed by shrub (30%) and herb(15%) respectively. But this finding disagree with the study of (Shemsu Ligani *et al.*, 2016) reported shrubs (37.93%) were highest followed by trees (27.59%).

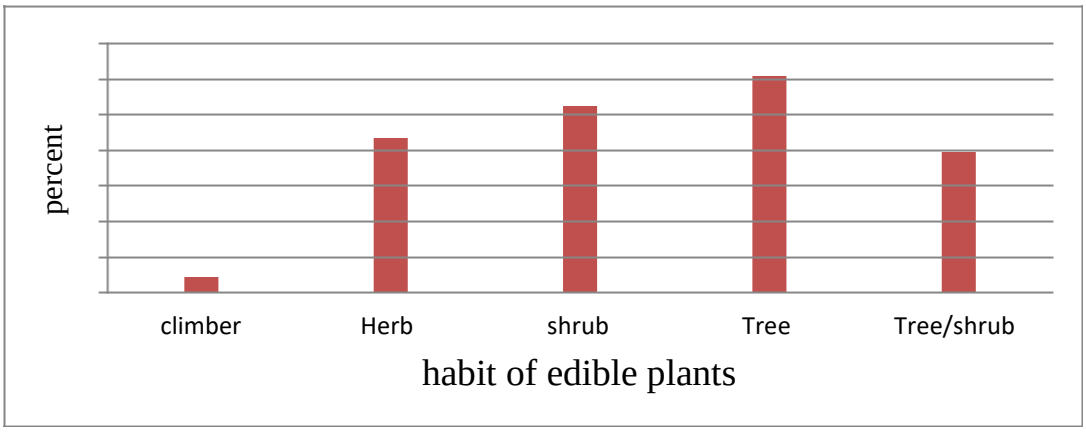

Figure 3 Percentage and growth form of wild edible in the district

Preparation Mode of Wild Edible Plants

Of the collected wild edible plants local people reported wild edible plants consumed by different mode of preparation depends on the form of plants. Accordingly the fresh ripe fruits (72%) were the highest followed by Root/tuber cooked (11%), leaf cooked (7%), Seeds eaten fresh (7%), part cooked (2%) and flowering nectar used (2%) (Figure 4). The finding in line with study of (Getu Alemayehu, 2017) reported that from the identified plant species 57 (89.06%) species of fruits were eaten raw and 7 (10.93%) species were consumed after cooked or processed; It also consistent with other study done in Ethiopia by (Mekuanent Tebkew, 2015; Kebu Balemie and Fassil Kebebew, 2006) reported that more than have of wild edible plants were consumed in fresh without further processing while somes of them were eaten after cooking.

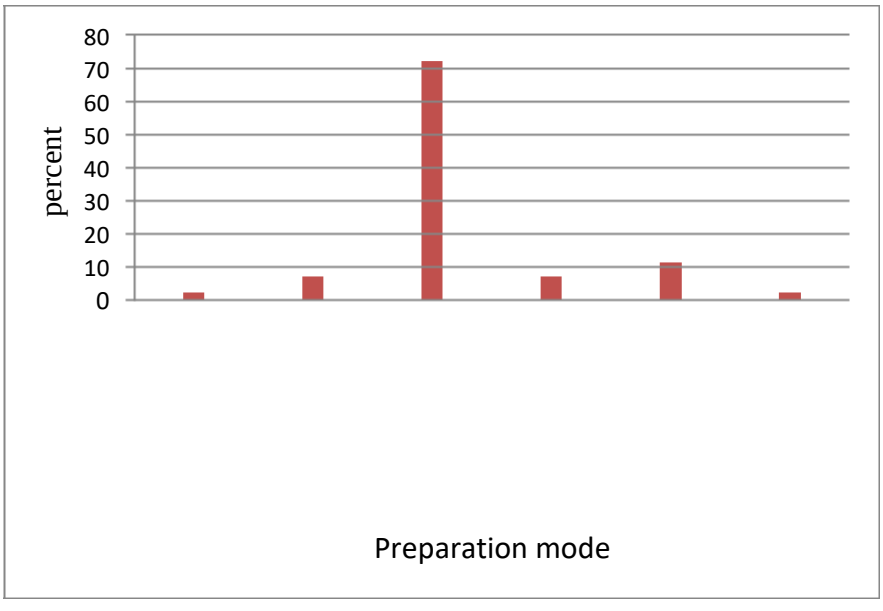

Figure 4 Percentage and Preparation mode of wild edible plants in Adola district

Economic Benefit from Wild Edibles in the Study Area

The result revealed that wild edible plants used as economic benefit for local people by many direction. One hundred twenty respondents of different wealthy categories of the communities were asked the economic benefit of wild edible plants in the district.They stated that (82%) of respondets get economic benefits from wild edible

plants (Table 2). Even if there was difference dependence of wealthy categories, local people directly or in directly obtained economic benefits from wild edible plants for their live.

Wild edible plants in Adola district, addition to food it provide various uses such as fuel wood, fencing, construction, soil and water conservation, shading and shelter, rope making, medicinal, fodder, timber, Charcoal preparation, honey production and washing clothes as detergents. This result in line with the study of (Mekuanent Tebkew, 2015) reported wild edible plant used for another purpose in addition to food.

Table 2 Distribution of economic benefit of wild edibles depend on the respondent of study site

Wealthy category						
Respondent	Rich	Medium	Poor	Total	%	Ch-X2
Yes	14	65	19	98	82	
No	10	12	0	22	18	
Total	24	77	19	120	100	0.01**

Dimension of Gender and Age for Collection of Wild Edible Plants

The respondent's response (78.3%) as there was no taboo between gender to collect wild edible plants and only (21.7%) of respondent stated as there was taboos in collecting wild edible plants between genders. But when considering the age (76.7) respondents were stated young age participated in collecting of wild edible plant followed by (17.5%) all age level and (7.5%) of middle age participated for collecting wild edible plants (Table 3). This finding inline with the study of (Debela Hunde *et al*., 2011) reported gender category in eating and collecting of wild edible plants was not common.

Table 3 Taboos related to sex and age for collection of wild edible plants.

Taboos	Frequency	Percent%	Age	Frequency	Percent %
			old	0	0
yes	26	21.7	middle	7	5.8
No	94	78.3	young	92	76.7
			all	21	17.5
Total	120	100.0		120	100.0

Preference ranking of wild edible based on their tests

Local communities showed preference of one plants over the other based on different criteria. More reported wild edible plants were fruit which used as food. Of these edible fruits was reported based on test of 5 edible plant species. The preference ranking of these 5 edible plant species were reported as effective for better test was conducted after selecting 10 key informants. The informants were asked to compare the more reported wild edible fruit plants based on their test and ask to give the highest number (5) for which they thought the most effective in testing and the lowest number (1) for the least testing plant fruits. *Syzygium guineense* (gotu) stood first among the five plant species followed by *Rosa abyssincia*, *Vernonia auriculifera*, *Ficus sur* 2nd, 3rd and 4th respectively,

where as *Syzygium guineense* was found to be the least preferred species (Table 4). This indicates that communities have alternative plant species to eat and they have preference to one over the other based on their long time experience on the relative test of the wild edible plants.

Table 4 Preference ranking of five selected wild edible plants based on their tests

preferenc ranking	Informant (I_1-I_{10})											
Fruit	I_1	I_2	I_3	I_4	I_5	I_6	I_7	I_8	I_9	I_{10}	Total	Rank
Syzygium guineense	3	5	2	3	2	3	1	4	2	3	28	5th
Rosa abyssincia	5	4	5	4	4	4	4	3	3	4	40	2nd
Vernonia auriculifera	3	4	4	3	2	4	2	5	4	5	36	3rd
Ficus sur	4	3	2	3	4	1	3	3	4	2	29	4th
Syzygium guineense(gotu)	4	5	4	4	5	5	4	4	5	3	43	1st

Direct Matrix Ranking Of Wild Edible Plant Species

The major uses of plants reported were for medicinal, fodder, food, firewood, construction, charcoal and fencing .The result showed that *Cordia africana* ranked first followed by *Syzygium guineense, Vernonia auriculifera Hiern, Carissa spinarum and Ficus sur (2nd, 3rd, 4thang 5th)* respectively (Table 1).This result indicates that *Syzygium guineense and Cordia africana* appear to have more demand than the others as they are used for more diverse purposes. The direct matrix ranking result showed that the local people harvest the six multipurpose plant species mainly for firewood the highest followed by food , fencing, medicinal purpose, construction, fodder and charcoal(2nd, 3rd, 4th, 5thand 6th,)respectively (Table 5).

Table 5 Average score for direct matrix ranking of six wild edible plant species based on their general use values (5 = best,4 = very good, 3 = good, 2 = less used, 1 = least used and 0 = not used)

	Use categories								
medicinal plant	medicinal	firewood	construction	food	charcoal	fencing	fodder	total	rank
Cordia africana Lam.	5	4	5	4	4	2	3	27	1st
Syzygium guineense	3	3	4	5	3	4	3	25	2nd
Vernonia auriculifera Hiern	4	3	2	4	1	4	4	22	3rd
Carissa edulis	3	4	0	3	1	5	3	19	4th
Syzygium guineense(gotu)	0	4	2	5	4	2	3	20	5th
Ficus sur	2	3	2	2	2	2	2	15	6th
Total	17	21	15	23	15	19	18	128	
Rank	4th	2nd	4th	1st	6th	3rd	5th		

CONCLUSIONS AND RECOMMENDATIONS

The study revealed that habitat distribution, season of collection, uses of most edible plants still maintained in communities of study area. Accordingly a total of 46 wild edible plants which distributed in 41 genera and 35 families were recorded. Of the total the majority were obtained from wild vegetation. From the collected plant species anacardiaceae, euphorbiaceae, flacourtiaceae families were each by 3(8.6%) species were the highest plant species. The growths forms it were trees the highest proportion followed by shrubs. Fruit (72.9%) is found to be the most edible plant part and the most mode preparation were fresh rape fruit taken as raw. Based on their tests Syzyguim guineense was selected first and Codia africana was selected for multi purpose uses. The most the plants were collected in wet season.

The indigenous people reported that wild edible plants were highly threatened inconnection to population growth by agricultural expansion followed by firewood collection process of anthropogenic activities and very poor conservation efforts for threaten wild edible plants. There fore the study recommended needs to adapting, growing and intentionally managing Commonly consumed wild edible plants and Supporting the activities of plantations of wild edible plants more diversified food values such as *Syzygium guineense and codia africana.*

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