

CONTENTS

<u>Chapter</u>	<u>Page Number</u>
INTRODUCTION	1
REVIEW OF LITERATURE	19
MATERIALS AND METHODS	63
Chemicals and reagents	63
Media used	68
Methodology	69
Survey	69
Collection of samples	71
Estimation of Moisture	72
Estimation of Ash	72
Estimation of Fat	72
Estimation of crude fiber	73
Estimation of Protein	74
Estimation of Carbohydrate	75
Estimation of Food Value	75
Estimation of Minerals	76
Estimation of Vitamin-C	77
Extract Preparation	79

Estimation of total phenolic content	79
Antioxidant assay	80
Microbiological safety analysis	81
RESULTS	82
Survey on Wild leafy vegetables	82
Documentation of traditional knowledge	82
Documentation of common and less familiar wild leafy vegetables consumed by different ethnic people of Sikkim	84
Availability season	87
Ecological distribution	89
Socio Economy	95
<i>Amaranthus viridis</i>	100
<i>Chenopodium album</i>	110
<i>Diplazium esculentum</i>	119
<i>Nasturtium officinale</i>	130
<i>Urtica dioica</i>	140
Nutritional composition	151
Elemental analysis	152
Vitamin-C content	154
Antioxidant Activity	155

Total phenolic content	157
Occurrence of pathogenic bacteria	158
Domestication model	160
Graphic representations	166
DISCUSSION	182
Documentation of traditional knowledge	182
Documentation of common and less familiar WLVs consumed by different ethnic people of Sikkim.	184
Availability season	184
Ethnic importance:	186
Ecological distribution	187
Foraging	188
Socio-economy	189
Mode of consumption	194
Nutritional composition	195
Minerals	198
Vitamin-C	200
Antioxidant capacity	201
Total Phenolic Content	202
Pathogenic bacteria	204

Domestication model	204
Conclusion	206
SUMMARY	208
BIBLIOGRAPHY	212

Wild edible plants are still eaten by a large section of the global population and ensure both affordable food and nutritional security. We tested this in an Indian context, where an enormous diversity of such plants constitutes a significant part of the rural diet and their acceptance has been high. In this study, we assessed the diversity of wild edible plant resource and the importance of species based on the use and its pattern. Throughout literature, the choice of certain taxa has widely been reported from studies on Asia, Europe, and Africa; only the preferred set of species varied with geography (Ogle and Grivetti, 1985a,b; Tardão et al., 2006; Hadjichambis et al., 2008; Cruz-Garcia and Price, 2011; Sujarwo et al., 2014). dark green leafy vegetables. WEPs were less consumed as a replacement for other foods but rather as a complement to the diet. The study population generally appreciated WEPs, while some constraints were reported regarding preparation, conservation and commercialization. Before widely promoting WEP consumption in order to exploit their dietary potential, additional investigations are needed into their nutrient composition, cultural and market value, their sustainable harvest levels and possible integration into innovative farming systems. Keywords Wild edible plants . Green leafy vegetables have been recognised as rich source of micronutrients (minerals and vitamins) and antioxidants (Kala and Prakash, 2004). In most developing nations where food shortages and famine is mostly experienced, greens are the means of livelihood; Niger famine of 2005 is a clear evidence, in which many populace depend on leaves of Anza or Dilo (*Boscia senegalensis*) and Roselle (*Hibiscus sabdariffa*) leaves as a means of survival. Part 2: The distribution of protein, carbohydrates (including ethanol-soluble simple sugars), crude fat, fibre and ash. Food Chem., 5: 231-235. CrossRef |. Micronutrient composition and nutritional importance of gathered vegetables in Vietnam. Int. J. Food Sci. For some, such a nutrition system is a reflection of the psychological rejection of violence against animals, for some - it becomes a way to support the body in excellent shape. With the first category of vegetarians to discuss the benefits or harm of eating meat is meaningless, since they are disgusted by the very thought of it. People from the second category most often switch to a vegetable diet in adulthood, when they begin to look for ways to prolong the active period of life. Fruits and vegetables are low-calorie, so even with large daily portions gain weight is problematic. 2. Complete work of the digestive tract. Due to the large amount of fiber in the composition, plant food stimulates the intestinal peristalsis and prevents the stagnation of stool. 3. Stimulation of the immune system. In two studies, higher vegetable intake, but not fruit intake, was associated with less cognitive decline(Reference Kang, Ascherio and Grodstein9, Reference Morris, Evans and Tangney10). The Doetinchem Cohort Study(Reference Verschuren, Blokstra and Picavet15) is an ongoing prospective study that included a general population sample of 7769 men and women aged 20-59 years during the first examination (1987-91). Vegetables were subdivided into leafy vegetables (chicory, endive, lettuce and spinach, except cabbage), fruiting vegetables (cucumber, sweet pepper and tomato), root vegetables (carrots and red beets), cabbages, mushrooms and allium (garlic, onion and leek). Legumes consist of green beans, green peas and other legumes.