

## Unequal brothers – Plant and fungal use in Guria and Racha, Sakartvelo (Republic of Georgia), Caucasus

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Guria and Racha are historical provinces of Republic of Georgia, located on the South-facing macro-slope of the western part of the Greater Caucasus (Racha) and East of the Lesser Caucasus towards the Black Sea (Guria). In this study we documented traditional plant use in Guria and Racha, and hypothesized that (1) plant use knowledge in general would be higher in isolated high elevation communities, and that (2) use of home gardens would be much more restricted to lower elevation settings. Fieldwork was conducted in Lechkumi in July–August 2014, and in Guria and Racha in July–August 2016. Interviews using semi-structured questionnaires were conducted with 32 participants (10 women and 22 men), with oral prior informed consent. We encountered 338 plant species belonging to 252 genera of 101 vascular plant families, 4 undetermined species, and 20 fungal species and 15 undetermined fungi, belonging to at least 16 genera of 16 families being used in the research region. Of these 223 species were exclusively wild-collected, 110 were grown in home gardens, and 56 were both grown in gardens and collected in the wild. Plants and their uses mostly overlapped among the areas within the region, with a slightly wider divergence in uses than in plants. The environmental fit analysis showed that a large degree of this variation was explained by differences among participant communities. The elevation of the participant community significantly fit the ordination in plant-space and explained a large degree of the variation in plant species reported but not in use-space. Gender was not significant in plant-space or use-space.

**Keywords:** Caucasus, Ethnobotany, Plant use, Traditional knowledge, Post-soviet development

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Few regions in Europe are deeper steeped in mythology than the Caucasus, and few have drawn more interest by botanists and anthropologists alike. It would indeed be impossible to define the Caucasus with any one singular term, given the historic, cultural, economic, religious and ethnical diversity of the region.

The Greater and Lesser Caucasus ranges form one of the most important biodiversity hotspots, and also a cradle for human plant use, where human agricultural activities date back at least 6000 years, with an astounding human diversity. The Greek historian Herodotus wrote in the 5<sup>th</sup> century BCE that “Many and all manner of nations dwell in the Caucasus,” and Strabo, at the beginning of the first century CE reported of 70 “tribes” in the region, each of which had its own language. The Roman chronicler Pliny the Elder wrote

that the Romans needed 130 interpreters to do business in the Caucasus. The Armenian and Kartvelian (to which Georgian belongs) language families are among the oldest in the world<sup>1</sup>.

This incredible diversity, and the importance of the region, e.g. as transit area for the silk-road, reflects also in the use of plants, and while many species have shared used in different parts of the Caucasus, humans have also developed a wide range of distinct ways to use plant resources, be it for food, medicine, or utensils and tools. The combination of a wide variety of ecosystems, fostering a huge botanical diversity, together with ancient plant use practice, and the breathtaking hospitality of its peoples, makes the Caucasus an ethnobotanists’ dream destination. While ethnobotanical research in the region was quite prominent in the earlier 20<sup>th</sup> century, little research in the field has been published from the region since the 1940s<sup>1</sup>.

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Guria and Racha are historical provinces of Republic of Georgia, located on the South-facing macro-slope of the western part of the Greater Caucasus (Racha) and East of the Lesser Caucasus (Guria)<sup>2</sup> (Fig. 1). Racha, and especially, Guria experience the influence of the Black Sea and moist westerly winds. The lower part of Guria forms part of the the Colchis lowlands, while to the North-west Guria extends into the Lesser Caucasus. The vegetation of the region includes montane forest, subalpine, alpine, subnival and nival zones and corresponds to the West Caucasian, i.e. Colchic, type of the vegetation vertical zonation<sup>3,4</sup>. Most inhabitants speak both Georgian and Gurian/Rachian, all belonging to the Kartvelian group of the Iberian-Caucasian family of languages<sup>5,6</sup>.

Over the last years, modern ethnobotanical knowledge in the Caucasus region has greatly increased<sup>1</sup>. In the Republic of Georgia, comparative ethnobotanical studies now exist for about half the country, including the regions of Svaneti-Lechkhumi<sup>7,8</sup>, Samtshe-Javakheti<sup>9,10</sup>, and even higher than in Tusheti-Khevsureti-Pshavi<sup>11,12</sup>, as well as a synthesis for those parts of the country<sup>13</sup>.

In this study we attempted to closed an existing gap and documented traditional plant use in Guria and Racha, and compared this use to the close-by Region of Lechkhumi, as well as to other parts of Georgia. We hypothesized that (1) plant use knowledge in general would be higher in isolated high elevation communities, and that (2) use of home gardens would be much more restricted to lower elevation settings.



Fig. 1 — Map of study region

## Materials and methods

### *Ethnobotanical interviews*

Fieldwork was conducted in Lechkhumi in July–August 2014, and in Guria and Racha in July–August 2016. Interviews using semi-structured questionnaires were conducted with 32 participants (10 women and 22 men), with oral prior informed consent. The participants were selected by snowball sampling, trying to reach gender balance and represent members of different age groups (13–86 yrs). However, most participants were over 50 yrs old, because only very few younger people remain in remote Georgian villages. All interviews were carried out in the participants' homes and gardens by native speakers of Georgian and its local dialects, and then translated into English. Plants grown in the home gardens were used as prompts, while wild-collected species were free listed. Wild-collected and garden species were identified directly in the field, as well as using this literature<sup>14,15</sup>, and voucher collections deposited in the National Herbarium of Georgia (TBI). The nomenclature of all species follows [www.tropicos.org](http://www.tropicos.org), under APGIII<sup>16</sup>. The spelling of vernacular names was standardized using Makashvili<sup>17</sup>.

### Statistical analysis

#### *Overlap between regions – plants and uses*

In Venn (Euler) diagrams representing plants and use categories reported across different geographical regions and areas, circle areas and intersections approximate the counts for each area, and a stress value indicates how well these are as approximate the actual relative counts<sup>18</sup>.

#### *Distance among participants – plants and uses*

Distance among participants was calculated using non-metric multi-dimensional scaling on two distance matrices: one in which columns represented plant species reported, and one in which columns represented use categories reported. The resulting ordinations plot individuals who report similar plants or similar uses more closely together. Environmental characteristics (gender and age of participants, and identity, elevation, area and region of participant community) were then fit to test how well a characteristic explains the location of participants in the ordination. We compared these fits to 999 randomized shuffles of the environmental variables to calculate significance using the R package Vegan<sup>19</sup>.

### Informant Consensus Factor

Informant Consensus Factor (IFC) for a given Use Category was calculated as the number of use reports minus the number of taxa over the number of use reports minus one:

$$\frac{Nur - Nt}{Nur - 1}$$

Where, Nur = number of use reports from informants for a particular plant-use category; Nt = number of taxa or species that are used for that plant use category for all informants.

### Results

We encountered 338 plant taxa belonging to 252 genera of 100 vascular plant families, 4 undetermined species, and 20 fungal species and 15 undetermined fungi, belonging to at least 16 genera of 16 families being used in the research region. Of these, 318 species had specific uses, while 20 species were recognized by the participants and had local names, but were not used any more. Of all taxa, 223 species were exclusively wild-collected, 110 were grown in home gardens, and 56 were both grown in gardens and collected in the wild (Table 1). The most important use categories were food (194 species; 94 in gardens, 62 in forests and pastures, and 38 both in gardens and wild collected), and medicinal (122 species, 20 in gardens, 79 in forests and pastures, and 23 in both).

Most species and uses were widely used across the region, with more reports and unique reports from Bakhmaro-Baisrura pastures in Guria and KvedaTlughu in Racha – both the highest elevation communities (Table 2). All regions of Guria and Racha (Fig. 2) showed a high overlap of plant species known as well as of their uses.

A very high degree of overlap existed for both the reported species inventory and uses reported among areas within Guria (Fig. 3A-C) and Racha (Fig. 4A). Despite this, individual participant answers were mostly influenced by geographic area. In Guria, elevation of participant community (Fig. 3B,  $r^2 = 0.54$ ,  $p = 0.001$ ) and area within Guria of community (Fig. 3C,  $r^2 = 0.32$ ,  $p = 0.001$ ) significantly fit the ordination in plant-space. In use-space, elevation is less explanatory and marginally significant (Fig. 3E,  $r^2 = 0.22$ ,  $p = 0.04$ ), while gender is significant (Fig. 3F,  $r^2 = 0.28$ ,  $p = 0.003$ ). In Racha participants strongly clustered in plants reported, and despite some similar answer among respondents from different

geographical areas (RA1, RA2, RA3), area and community elevation significantly fit the ordination in plant-space (Fig. 4B,  $r^2 = 0.59$ ,  $p = 0.01$ ;  $r^2 = 0.66$ ,  $p = 0.007$ ). Use categories reported were however much more variable and did not significantly fit any demographic or environmental variables (Fig. 4C,D). Similarly, when comparing the two research areas, a great degree of overlap existed for list of plants (Fig. 5A, B) and uses (Fig. 5C,D) reported among areas within Guria (GU1-3) and Racha (RA1-3). Despite this, individual participant answers were structured by geographic area in plant-space (Fig. 5C,  $r^2 = 0.55$ ,  $p = 0.001$ ). In use-space this fit is non-significant (Fig. 5D,  $p = 0.7$ ), with more overlap between communities and most variation in GU1.

If adding the lower lying Lechkhumi Region (Lower Racha), it becomes clear that both plant knowledge and plant use are especially maintained in higher altitude and more isolated regions. When Guria, Racha, and Lechkhumi participants were ordered by their distance in plants reported (Fig. 6A-C) and in uses reported (Fig. 6D-F). Elevation of participant community significantly fits the ordination in plant-space (Fig. 6B,  $r^2 = 0.27$ ,  $p = 0.001$ ) and in use-space (Fig. 6E,  $r^2 = 0.13$ ,  $p = 0.03$ ). Region significantly fit the ordination for both plant-space (Fig. 6C,  $r^2 = 0.54$ ,  $p = 0.001$ ) and use-space (Fig. 6F,  $r^2 = 0.30$ ,  $p = 0.001$ ). Overall, plant uses in Racha and Guria were much more similar to one-another than either one to the low-lying Racha-Lechkhumi, which also had the lowest number of use categories reported.

### Informant Consensus Factor

Relative number of use reports across use categories bore strong similarities across each of the communities in Guria, and Racha. Beyond small differences in scale related to the fewer total number of interviews in the small villages, e.g. Dvabzu, Zemo Surebi, Vakijavri and Natanebi in Guria, and Kveda Shavra, Gona and Shardometi in Guria (Table 2). For instance, the food and medicinal use categories remain those most frequently mentioned in all communities. Informant Consensus Factor differed more greatly, with nearly all categories in some communities showing very high IC, even with few use reports. However, in Racha Informant Consensus Factor was generally much lower than in Guria, indicating a very wide knowledge spread in Guria, and a more selective plant usage in Racha.

Table 1 — Plants used in Guria and Racha

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts	Location
<b>Aceraceae</b>					
<i>Acer campestre</i> L.	Construction (Timber); Fuel (Firewood); Utensils and tools (Carts, Tools, Yokes)	ნეკერჩხალი (nek'erchkhali)		Stem	Forest
<i>Acer laetum</i> C.A. Mey. (RA)	Fuel (Firewood); Utensils and tools (Yokes)	ქორაფი (korapi)	ლეკა (lek'a), ლეკი (lek'a)	Stem	Forest
<i>Acer platanoides</i> L. (GU)	Fuel (Firewood); Utensils and tools (Snowshoes)	ლეკი (lek'i)		Stem	Forest
<i>Acer pseudoplatanus</i> L. (GU)	Construction (Timber); Utensils and tools (Snowshoes)	ლეკი (lek'i)		Stem	Forest
<i>Acer</i> sp.	Construction (Timber); Fuel (Firewood); Utensils and tools (Snowshoes, Tools)	ლეკენჩხალა, ლეკი (lek'enchkhala, lek'i), ლეკი (lek'i), ნეკერჩხალი (nek'erchkhali)	ლეკი (lek'i), ნეკერჩხალი (nek'erchkhali), ქორაფი (korapi)	Leaf, Stem	Forest
<b>Actinidiaceae</b>					
<i>Actinidia callosa</i> Lindl.	Food (Alcohol, Human food)	კივი (k'ivi)		Fruit	Garden
<b>Adoxaceae</b>					
<i>Sambucus ebulus</i> L.	Animal food (Fodder cows); Food (Alcohol); Medicinal (Gastro intestinal system, Stomach, Tincture, Weak ankles, Wounds)	ანწლი (ants'li)		Root, Fruit, Stem	Forest
<i>Sambucus nigra</i> L.	Construction (Posts); Food (Human food); Utensils and tools (Tool handles)	დიდგულა (didgula), თხიფსელა (tkhypsela)	თხიფსელა (tkhypsela)	Fruit, Stem	Forest
<i>Viburnum lantana</i> L.	Construction (Posts); Cultural (Protection)	უზანი (uzani)	თურსა (tursa Tush.)	Stem	Forest
<i>Viburnum opulus</i> L.	Cultural (Protection); Medicinal (Blood pressure (reduces), Blood tension, Cough)	ძახველი (dzakhveli)	მჯახველი (mjakhveli), ჯანხველა (jankhvela)	Fruit, Stem	Forest
<b>Agaricaceae</b>					
<i>Agaricus arvensis</i> Schaeff. (RA)	Food (Human food)	კამა (kama), (nighsic)		Fruiting body	Forest
<i>Agaricus campestris</i> L. (RA)	Food (Human food)	მინდვრისსოკო (mindvris sok'o)		Fruiting body	Forest
<i>Lycoperdon</i> sp. (RA)	Medicinal (Wounds)	ფშუკურა (pshuk'ura), წიაჭუა (pshuk'ura)	მჭუანა (mchuania)	Whole plant	Forest
<b>Aloaceae</b>					
<i>Aloe barbadensis</i> Mill. (GU)	Medicinal (Wounds)	ალე (aloe)		Leaf	Garden
<b>Amanitaceae</b>					
<i>Amanita caesarea</i> (Scop.) Pers. (RA)	Food (Human food)	ნიყვი (niq'vi)		Fruiting body	Forest
<b>Amaranthaceae</b>					
<i>Amaranthus retroflexus</i> L.	Food (Pkhali); Ornamental (Ornamental)	ჭიჭლაყა (ch'ich'laq'a), ჯიჯლაყა (jijlaq'a)	რუხვერია (rukhpveria), წითელიფხალი, ლიხანაფხალი (ts'iteli pkhali, likhana pkhali), ჭიჭლაყა (ch'ich'laq'a)	Leaf, Shoot, Whole plant	Forest, Garden
<i>Beta vulgaris</i> L.	Food (Human food)	ჭარხალი (ch'arkhali)		Leaf, Root	Garden
<i>Beta vulgaris</i> L. ssp. <i>cicla</i> (L.) Moq.	Food (Human food, Pkhali)	წითელიფხალი (ts'iteli pkhali), ჭარხალი (ch'arkhali)		Leaf	Garden
<i>Chenopodium album</i> L.	Food (Human food, Pkhali)	ნაცარქათამა (natsarkatama)	ქათანაცარა (katanatsara)	Leaf, Shoot	Forest

(Contd.)

Table 1 — Plants used in Guria and Racha (Contd.)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<b>Amaryllidaceae</b>					
<i>Allium ascalonicum</i> L. (GU)	Food (Human food)	სოხვი (sokhvi)		Stem	Garden
<i>Allium cepa</i> L.	Food (Human food); Fuel (Firewood)	ხახვი (khakhvi)		Bulb, Whole plant	Garden
<i>Allium fistulosum</i> L.	Food (Human food, Pickled)	სოხვი (sokhvi), ჭლაკვი (ch'lak'vi)	ჭაგვ (ch'hagv Svan.), სოხვი (sokhvi), ჭყუბალა (ch'q'ubala)	Bulb, Stem, Whole plant	Garden
<i>Allium porrum</i> L.	Food (Human food, Pickled)	პრასი (p'rasi)		Whole plant	Garden
<i>Allium sativum</i> L.	Food (Human food, Pickled, Svan salt)	ნიორი (niori), რუსულანიორი (rusula niori)		Bulb, Whole plant	Garden
<i>Allium</i> sp.	Food (Human food, Pickled)	ჭლაკვი (ch'lak'vi)		Whole plant	Garden
<i>Allium ursinum</i> L. (GU)	Food (Pickled)	ოლენა (olena)		Whole plant	Forest
<i>Allium victorialis</i> L.	Food (Phkhali, Pickled)	მთისღანძილი (mtis ghandzili), ოლენა (olena)	შიშლილ (shishkil Svan.), ტყინიორა (t'q'iniora)	Leaf, Whole plant	Forest
<i>Galanthus</i> sp.	Food (Human food, Pkhali); Medicinal (Sold)	თეთრყვავილა (tetrq'avila), მთისშროშანი (mtis shroshani), საპყორინე (sapq'orine)	მწვადინელა (mts'vadinela)	Bulb, Leaf	Forest
<i>Leucojum aestivum</i> L. (GU)	Cultural (Perfume)			Leaf, Shoot	Forest
Amaryllidaceae sp. 1 (GU)	Food (Human food)	პრასი (prasi), ხახვი (Khakhvi)		Whole plant	Garden
Amaryllidaceae sp. 2 (GU)	Food (Human food, Pickled)	რუსულანიორი (rusuli niori)		Whole plant	Garden
<b>Annonaceae</b>					
<i>Annona cherimola</i> Mill. (GU)	Food (Human food)			Fruit	Garden
<b>Apiaceae</b>					
<i>Agasyllis latifolia</i> (Bieb.) Boiss. (RA)	Food (Khachapuri, Pkhali)	დუცი (dutsi)		Leaf	Forest
<i>Anethum graveolens</i> L.	Food (Human food); Medicinal (Digestive)	კამა (k'ama)	რუსულიკამა? (rusuli k'ama?)	Leaf, Shoot	Garden
<i>Anthriscus cerefolium</i> (L.) Hoffm. (GU)	Food (Pkhali)	ჭყიმავხალი (ch'q'imapkhal)		Leaf, Shoot	Garden
<i>Anthriscus sylvestris</i> L. (RA)	Food (Human food)	ჭყიმი (ch'q'imi)	მაწარა (matsara)	Leaf, Shoot	Forest
<i>Apium graveolens</i> L.	Food (Human food); Medicinal (Diuretic)	ნიახური (niakhuri)	დიდინიახური	Leaf, Shoot, Root	Garden
<i>Astrantia maxima</i> Pall.	Medicinal (Diarrhea, Digestive, Stomach)	ეგირი (egiri), ვარსკვლავა (varsk'vlava), თესიგირი (tesigiri), ინგირი (ingiri)		Leaf, Shoot, Root, Stem	Forest
<i>Chaerophyllum aureum</i> L.	Food (Pickled)	ყინტორა (q'int'ora), ძენწკლია (dzents'k'lia)		Stem	Forest, Garden
<i>Coriandrum sativum</i> L.	Food (Human food, Svan salt)	ქინძი (kindzi)		Leaf, Shoot, Seed	Garden

(Contd.)

Table 1 — Plants used in Guria and Racha (*Contd.*)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts	Location
<i>Daucus carota</i> L. (GU)	Food (Pkhali)	ფერისცვალა (peristsvala)	სიქილონჯა (sikilonja)	Whole plant	Forest
<i>Daucus carota</i> L. ssp. <i>sativus</i>	Food (Human food)	მარკოვი (mark'ovi), სტაფილო (st'apilo)		Root	Garden
<i>Eryngium caeruleum</i> M. Bieb.	Medicinal (Urinary problems)	ლურჯინარიმლურჯეკალა (lurji nari, lurjek'ala)		Leaf, Shoot	Forest
<i>Foeniculum vulgare</i> Mill.	Food (Human food); Medicinal (Digestive)	დიდიკამა (didi k'ama), ოკრუპი (ok'rup'i)	ცერეცო (tseretso)	Leaf, Shoot	Garden
<i>Heracleum</i> sp.	Food (Human food, Pkhali); Medicinal (Mastitis); Veterinary (Mastitis in cows)	დიეი (diq'i), ლეშხი (leshkhi)	მდიეი, მდუხი (mdiq'i mdusi), ჩილახარჩილა (chilakharchila)	Leaf, Stem	Forest
<i>Hippomarathrum microcarpum</i> Petrov. (RA)	Medicinal (Cold)	ქარქვეტა (karkvet'a)		Fruit	Forest
<i>Petroselinum crispum</i> (Mill.) Fuss.	Food (Human food)	მაკიდო (mak'ido), ოხრაბუში (okhrakhusi)	მაკიდო (mak'ido)	Leaf, Shoot	Garden
<i>Pimpinella anisum</i> L. (RA)	Medicinal (Anti-inflammatory, Digestive)	ანისული (anisuli)		Leaf, Shoot	Forest
<i>Sanicula europea</i> L. (RA)	Not used	ქრისტესბეჭედა (krist'esbech'eda)		No use	Forest
Apiaceae sp. (RA)	Food (Human food); Medicinal (Unspecified)	(didi k'ama), (varsk'vlava), კამა, ნიაბური, ოხრაბუში, ქინძი	ინგირი (ingiri), მაკიდო (mak'ido), ცერეცო (tseretso)	Leaf, Shoot, Stem	Forest, Garden
<i>Xanthogalum purpurascens</i> Avé-Lall. (RA)	Food (Human food)	ჯოჭი (joch'i)	ქურქუნდელი (kurkundeli)	Stem	Forest
<b>Aquifoliaceae</b>					
<i>Ilex colchica</i> Pojarjk.	Animal food (Fodder cows); Construction (Timber); Utensils and tools (Tools)	ბაძგი (badzgi), ბაძგნარი (badzgnari), წყაბაძა (ts'q'abadza)	ჭყორი (ch'q'ori)	Leaf, Stem	Forest
<b>Araceae</b>					
<i>Arum</i> sp. (RA)	Food (Human food, Pkhali)	ნიუკა (niuk'a)	დაჭრილა (dach'rila), ქალაკოდა (kalak'oda)	Leaf, Shoot	Forest, Garden
<b>Araliaceae</b>					
<i>Hedera colchica</i> (K. Koch) K. Koch	Animal food (Fodder cows); Medicinal (Burns, Migraine)	სურო (suro)		Leaf	Forest
<b>Araucariaceae</b>					
<i>Araucaria araucana</i> (Molina) K. Koch (GU)	Ornamental (Ornamental)	არაუკარია (arauk'aria)		Whole plant	Garden
<b>Aristolochiaceae</b>					
<i>Aristolochia</i> sp.	Medicinal (Nerves, Skin, Tonsilitis)	კატყვერა (k'at'aq'vera), ძირმწარა (dzirmts'ara)		Leaf, Shoot	Forest
<b>Aspleniaceae</b>					
<i>Asplenium trichomanes</i> L. (RA)	Medicinal (Wounds)	მამასწარა (mamasts'ara)		Leaf	Forest
<b>Asteraceae</b>					
<i>Achillea millefolium</i> L.	Medicinal (Diarrhea, Wounds)	ფარსმანდუკი (parsmanduk'i)	კრავისკუდა (k'ravisk'uda), მელაკუდა (melakuda, Tush.)	Leaf, Shoot	Forest, Garden
<i>Ambrosia artemisiifolia</i> L.	Animal food (Fodder cows)	ამბროზია (ambrosia)		Stem, Whole plant	Garden, Pastures
<i>Arctium lappa</i> L. (GU)	Medicinal (Anti-inflammatory, Arthritis)	ოროვანდი (orovandi)		Leaf	Forest

*(Contid.)*

Table 1 — Plants used in Guria and Racha(Contd.)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<i>Artemisia absinthium</i> L.	Medicinal (Antibiotic, Appetite); Veterinary (Antibiotic for cows)	ავშანი (avshani)		Leaf, Fruit, Shoot	Forest, Garden
<i>Artemisia dracunculus</i> L.	Food (Human food, Spice for meat); Medicinal (Digestive)	ტარხუნა (t'arkhuna)		Leaf, Shoot	Forest, Garden
<i>Artemisia vulgaris</i> L. (GU)	Not used	ჯორთკუდა (jortk'uda)		Leaf, Shoot, Whole plant	Forest, Garden
<i>Bidens tripartida</i> L. (GU)	Medicinal (Diuretic, Skin, Skin babies, Wounds)	ორკბილა (ork'bila), ხოზიკა (khozik'a)		Leaf	Forest
<i>Calendula officinalis</i> L.	Medicinal (Skin inflammations, Wounds)	გულყვითელა, ნარგიზელა (gulq'vitela, nargizela)		Flower	Garden
<i>Centaurea</i> sp. (RA)	Not used	ხახვისთავა (khakhvistava)		No use	Forest
<i>Cichorium intybus</i> L.	Food (Coffe replacement); Medicinal (Diabetes, Diarrhea, Gallbladder, Gastro intestinal system, Gum inflammation, Liver, Tooth problems)	ხაპრაი (khap'arai), ვარდკაჭაჭა (vardk'ach'ach'a)	ვარდკაჭაჭა (vardkach'ach'a Svan.), ულეწავა (ulets'ava), ულეწელა (ulets'ela)	Leaf, Shoot, Root	Forest
<i>Cirsium incanum</i> (S.G. Gmel.) Fisch. ex M. Bieb.	Food (Pkhali); Medicinal (Unspecified); Utensils and tools (Bolsters)	თეთრინარი (tetri nari)	გლიხორხა (glikhorkha)	Fiber, Leaf, Shoot	Forest
<i>Cynara cardunculus</i> L. (GU)	Food (Human food)			Flower	Garden
<i>Echinacea</i> sp. (GU)	Medicinal (Cold)	ეკინაცეა (ekinatsea)		Leaf, Shoot	Forest, Garden
<i>Helianthus annuus</i> L. (GU)	Food (Human food)	მზესუმზირა (mzesumzira)		Seed	Garden
<i>Helianthus tuberosus</i> L. (GU)	Food (Human food)	ხმატურა (khmat'ura)		Bulb	Forest
<i>Helichrysum</i> sp.	Medicinal (Anti-inflammatory, Digestive, Liver)	ნეგო, უკვდავა (nego, uk'vdava), უკვდავა (uk'vdava)	ბებრიძონძა (bebridzondza)	Leaf, Shoot	Forest
<i>Inula helenium</i> L. (RA)	Medicinal (Sold)	კულმუხო (k'ulmukho)		Leaf, Shoot	Forest
<i>Lactuca sativa</i> L.	Food (Human food)	სალათა (salata), სალათისფოთოლი (salatis potoli)		Leaf	Garden
<i>Lactuca serriola</i> L. (GU)	Food (Pkhali)	ნარკოკობა, ჭინჭახა (nark'ok'oba, ch'inch'akha)		Leaf, Shoot	Forest
<i>Matricaria chamomilla</i> L. (RA)	Medicinal (Gum inflammation)	გვირილა (gvirila)		Flower	Forest, Garden
<i>Petasites vulgaris</i> Desf.	Animal food (Fodder cows); Food (Human food); Medicinal (Unspecified)	ბუერა (buera), ბურღავა (burghava), ბურღავაგურიამი, ბარამბოაჭარამი (burghva in Guria, barambo in Adjara)	დიმელა (dimela)	Leaf, Stem	Forest
<i>Pyrethrum macrophyllum</i> Willd. (GU)	Animal food (Fodder cows)	გვირილა (gvirila)		Leaf, Shoot	Forest
<i>Senecio platyphyllus</i> DC. (GU)	Medicinal (Sold)	ხბოსმულა (აჭარაში), კიტრა (გურიამი) (khhbosshubla in Adjara, k'it'ra in Guria)	ბულღავა (bulghava)	Leaf, Shoot	Forest
<i>Senecio</i> sp. (GU)	Poison (Toxic for cows)	პუერა (puera)		Leaf, Shoot	Forest
<i>Serratula quinquefolia</i> Bieb. ex Willd. (RA)	Food (Pkhali)	საღვერავი, ირმისმხალა (Irmismkhala)		Leaf, Shoot	Forest
<i>Silybum marianum</i> (L.) Gaertn. (GU)	Medicinal (Liver)	ბაყაყურა (baq'aq'ura)		Leaf	Forest, Garden
<i>Sonchus asper</i> (L.) Hill.	Animal food (Fodder cows); Food (Human food, Pkhali)	ღიჭა (ghich'a)	ღენჭო (ghench'o)	Leaf, Shoot, Young leaf	Forest, Garden

(Contd.)

Table 1 — Plants used in Guria and Racha (*Contd.*)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<i>Stenactis annua</i> (L.) Cass. ex Less. (RA)	Not used	ცხენისკუდა (tskhenisk'uda)		No use	Forest
<i>Stevia</i> sp. (GU)	Food (Sweetener)			Leaf	Garden
<i>Tagetes patula</i> L.	Food (Human food)	ზაფრანა (zaprana), ზაფრანე (zaprane), ყვითელიყვავილი "იმერულიზაფრანა" (qhvitheli qhvavili "imeruli zaphrana"), ხავერდა (khaverda)		Flower, Leaf	Garden
<i>Taraxacum officinale</i> Wigg. (GU)	Medicinal (Tea)	ბაბუაწვერა (babuats'vera)	ბურბუშელა (burbushela)	Whole plant	Forest
<i>Tussilago farfara</i> L.	Medicinal (Anti-inflammatory, Cold, Cough, Expectorant, Flu, Wounds)	ვირისტერვა (virist'erpa)	ჯორისტერვა (jorist'erpa)	Leaf, Shoot	Forest, Garden
<b>Berberidaceae</b>					
<i>Berberis vulgaris</i> L. (RA)	Food (Human food, Sauce, Tea)	კოწახური (k'ots'akhuri)	მამჟაველა (mamzhavela), მჟაუნა (mzhauna)	Leaf, Fruit	Forest
<b>Betulaceae</b>					
<i>Alnus barbata</i> C.A. Mey.	Construction (Posts, Timber); Fuel (Firewood); Medicinal (Wounds); Utensils and tools (Wine presses); Veterinary (Hae)	თხემლა (tkhemla), თხემლი (tkhemli), მურყანი (murq'ani), მურყანი, თხემლა (murq'ani, tkhmela), რთხემლა (rtkhmela), მურყანი (murq'ani)		Fruit, Leaf, Stem, Young leaf	Forest
<i>Alnus incana</i> (L.) Moench	Construction (Timber); Fuel (Firewood)	ნაცარამურყანი (natsara murq'ani)	რთხემლა (rtkhmela)	Stem	Forest
<i>Betula litwinowii</i> Doluch.	Construction (Timber); Fuel (Firewood); Utensils and tools (Brooms, Household utensils, Tool handles)	არყი (arq'i)		Branches, Stem	Forest
<i>Betula medwediewii</i> Regel (GU)	Utensils and tools (Brooms)	არყიფერა (arq'ipera)		Branches	Forest
<i>Betula pendula</i> Roth (GU)	Construction (Timber)	არყი (arq'i)		Stem	Forest
<i>Carpinus caucasica</i> Grossh.	Animal food (Silkworms); Construction (Timber); Fuel (Firewood); Utensils and tools ( Sleds, Snowshoes, Tool handles)	რცხილა (rtskhila), ცხემლა (tskhemla)	რცხველა (rtskhvela)	Stem	Forest, Garden
<i>Corylus avellana</i> L. / <i>C. pontica</i> K. Koch.	Construction (Fences, Timber); Food (Human food); Utensils and tools ( Baskets, Carts, Rope, Tool handles, Walking sticks)	თხილი (tkhili)	კახა (khaka Svan.), ნემსი (nems Svan.)	Branches, Fruit, Stem	Forest, Garden
<b>Bignoniaceae</b>					
<i>Campsis</i> sp. (GU)	Construction (Timber); Ornamental (Ornamental)	დიდგულა (didgula), ლობიოსხე (lobios khe), ტეკომარია		Stem, Whole plant	Forest, Garden
<b>Boletaceae</b>					
<i>Boletus edulis</i> Bull. (RA)	Food (Human food)	დათვისოკო (datvisoko)		Fruiting body	Forest
<b>Boraginaceae</b>					
<i>Myosotis</i> sp. (RA)	Food (Human food, Pkhali)	კესანე (k'esane)	თიკნისყურა (tik'nisq'ura), კურდღლისსაკნატუნო (k'urdghlis sak'nat'uno)	Leaf, Shoot	Forest, Garden
<i>Symphytum caucasicum</i> M. Bieb. (GU)	Medicinal (Fractures)	შალდაყი (shaldaq'i)		Root	Forest
<i>Trachystemon orientalis</i> (L.) G. Don (RA)	Utensils and tools (Wrapping for milk products)	ანჩხლა (anchkhla)	ანჩხლი (anchkhli)	Leaf	Forest
<b>Brassicaceae</b>					
<i>Armoracia rusticana</i> G. Gaertn., B. Mey. & Scherb. (GU)	Food (Human food); Fuel (Firewood); Medicinal (Gum inflammation)	პირშუშხა (p'irshushkha), ხრენი (khreni)		Root, Stem	Garden

(Contd.)



Table 1 — Plants used in Guria and Racha (Contd.)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<i>Brassica oleracea</i> L.	Food (Human food, Pickled)	კეჟერა (k'ezhera), კეჟერაფხალი (k'ezhera pkhali), კომბოსტო (k'ombost'o), შავიფხალი (shavi pkhali)		Leaf, Shoot	Garden
<i>Brassica rapa</i> var. <i>rapa</i> L. (GU)	Food (Human food)	თალგამურა (thalgamura)		Root, Seed	Garden
<i>Capsella bursa-pastoris</i> L. (RA)	Food (Pkhali); Medicinal (Digestive)	წიწმატურა (ts'ts'mat'ura)	ხარიკბილა (kharik'bila), ხარიკრიჭა (kharik'rich'a), მარწყვაბალაკვა (marts'q'vabalakha)	Leaf, Shoot	Forest
<i>Dentaria</i> sp. (RA)	Not used	ტყისბოლოკა (tq'isbolok'a)		No use	Forest
<i>Lepidium sativum</i> L. (GU)	Food (Human food)	წიწმატი (ts'its'mat'i)		Leaf	Garden
<i>Raphanus sativus</i> L. var. <i>major</i>	Food (Human food); Medicinal (Kidneys)	ბოლოკი (bolok'i), შავიბოლოკი (shavi bolok'i)		Leaf, Root	Forest, Garden
<i>Raphanus sativus</i> L. var. <i>niger</i>	Medicinal (Kidneys)	შავიბოლოკი (shavi bolok'i)		Bulb	Garden
<b>Buxaceae</b>					
<i>Buxus colchica</i> Pojark. (GU)	Construction (Timber)	ბზა (bza)		Stem	Forest, Garden
<b>Campanulaceae</b>					
<i>Campanula glomerata</i> L. (RA)	Food (Human food, Pkhali)	დილხამი (dilkhami)		Leaf, Shoot	Forest
<i>Campanula lactiflora</i> Bieb.	Food (Human food)	დონდოლა (dondola), კენკეშა (k'enk'esha)	მუყუდო (muq'udo), საფურცკვენელა (sapurtskvnela)	Stem	Forest
<i>Campanula latifolia</i> L.	Food (Khachapuri, Pkhali)	დონდოლა (dondola)		Leaf, Shoot	Forest
<i>Campanula rapunculoides</i> L. (RA)	Food (Pkhali)	მაჩიტა (machit'a)	ჩიტითავა (chit'itava)	Leaf, Shoot	Forest
<b>Cannabaceae</b>					
<i>Cannabis sativa</i> L. (GU)	Food (Human food); Medicinal (Tumors); Utensils and tools (Rope)	კანაფი (k'anapi), ქან (qan)		Leaf, Flower, Seed, Stem	Garden
<i>Humulus lupulus</i> L.	Food (Human food); Medicinal (Nerves)	სვია (svia)		Fruit, Leaf, Shoot	Forest, Garden
<b>Cantharellaceae</b>					
<i>Cantharellus cibarius</i> Fr. (RA)	Food (Human food)	მიქელა (mikela), მილივი (mikliv)	მიქულა (miquela Svan.)	Fruiting body	Forest
<b>Caprifoliaceae</b>					
<i>Lonicera</i> sp. (GU)	Construction (Timber)	ცხრატყავა (tskhrat'q'ava)	თხიფსელა (tkhipsela), თხიმსელა (tkhimsela)	Stem	Forest
<b>Caryophyllaceae</b>					
<i>Silene lacera</i> Steven (RA)	Food (Human food)		ქვიშამხალი (kvisha pkhali) Tush.)	Seed	Garden
<i>Silene sibirica</i> (L.) Pers. (GU)	Food (Pickled)	ოლენა (olena)		Leaf, Shoot	Forest
<b>Cephalotaxaceae</b>					
<i>Cephalotaxus harringtonia</i> (Knight ex J. Forbes) K. Koch (GU)	Ornamental (Ornamental)	ცევალოტაქსუსი (tsepalotaksusi)		Whole plant	Garden
<b>Colchicaceae</b>					
<i>Colchicum</i> sp. (GU)	Medicinal (Unspecified)	ენძელა (endzela)		Root	Forest (Contd.)

Table 1 — Plants used in Guria and Racha (*Contd.*)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<b>Commelinaceae</b>					
<i>Tradescantia</i> sp. (GU)	Medicinal (Sold)	უკვდავა (uk'vdava)		Whole plant	Garden
<b>Convolvulaceae</b>					
<i>Convolvulus arvensis</i> L. (RA)	Animal food (Fodder cows); Food (Pkhali)	ხვართქლა (khvartkla)		Leaf, Shoot	Garden
<b>Cornaceae</b>					
<i>Cornus mas</i> L.	Food (Human food); Utensils and tools (Tool handles, Walking sticks)	შვინდი (shvindi), შინდი (shindi)		Fruit, Stem	Forest, Garden
<i>Swida australis</i> (C.A. Mey.) Pojark ex Grossh.	Food (Human food); Utensils and tools (Sieves)	შინდანწლა (shindants'la)		Branches, Leaf, Shoot	Forest
<b>Crassulaceae</b>					
<i>Crassula</i> sp. (GU)	Medicinal (Wounds)			Leaf	Forest
<i>Sempervivum caucasicum</i> Rupr. ex Boiss. (GU)	Medicinal (Wounds)	კლდისვაშლა (k'ldisvashla)		Leaf	Forest
<b>Cucurbitaceae</b>					
<i>Cucumis sativus</i> L.	Food (Human food, Pickled)	კიტრი (k'it'ri), პიკულიკიტრი (p'il'suyi k'it'ri)	ფორჩხისკიტრი (porchkhis k'it'ri)	Fruit	Garden
<i>Cucurbita maxima</i> L. (GU)	Food (Human food)	ქესტანა (kest'ana)		Fruit	Garden
<i>Cucurbita pepo</i> L.	Food (Human food)	ბამბისხაპი (bambis khap'i), გოგრა (gogra), კოშიეხაპი (k'oshie khap'i), ქესტანა (kest'ana), ყაბაყი (q'abaq'i), ხაპერა (khap'era), ხაპი (khap'i); [varieties:თათრულიკვახი (tatruli k'vakhi), მწარეხაპი (mts'are khap'a), მწარეხაპი (mts'are khap'i), უკანოკვახი (uk'ano k'vakhi), ხაპერა (khap'era), ხაპი (khap'i), ხოკერაკვახი (khok'era k'vakhi)]		Fruit	Garden
<i>Cucurbita pepo</i> L. var. <i>goromontia</i> (RA)	Food (Human food)	ყაბაყი (q'abaq'i)		Fruit	Garden
<i>Lagenaria siceraria</i> (Molina) Standl. (GU)	Food (Human food)	მწარეკვახი (mts'are k'vakhi)		Fruit	Garden
<b>Cupressaceae</b>					
<i>Juniperus depressa</i> Raf. ex Mc Murtrie (RA)	Food (Human food)	ღვია (ghvia)	ღრუკაკალი (ghruk'ak'ali)	Leaf, Shoot	Forest
<b>Dioscoreaceae</b>					
<i>Tamus communis</i> L.	Not used	ძაღლისსატაცური, მიხელტა (dzaghlis sat'atsuri, mikhelt'a)		No use	Forest
<b>Dipsacaceae</b>					
<i>Cephalaria gigantea</i> (Ledeb.) Bobrov (RA)	Food (Human food); Medicinal (Babies diseases); Utensils and tools (Arrows children)	სკიპალო (sk'ip'alo)	უროტეხა (urot'ekha, ), გოგშო (gogsho)	Leaf, Shoot, Stem	Forest
<b>Dryopteridaceae</b>					
<i>Dryopteris filix-mas</i> (L.) Schott. (GU)	Ornamental (Ornamental)	ტაბელა (t'abela)		Whole plant	Forest, Garden
<i>Drypteris oreades</i> Fomin (GU)	Ornamental (Ornamental)	ტაბელა (t'abela)		Whole plant	Forest, Garden

(Contd.)

Table 1 — Plants used in Guria and Racha(Contd.)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<b>Ebenaceae</b>					
<i>Diospyros lotus</i> L.	Food (Human food); Medicinal (Ear inflammation)	ჩვეულეღბრივიხურმა (chveulebrivi khurma), ცუანახურმა (tsuana xumra), ხურმა (khurma); [varieties:პატარახაშიახურმა (p'at'ara khashia xumra), ცუანახურმა (tsuana xumra), ხაშიახურმა (khashia khumra), ხაშიახურმა (k'araliok'i (after Russian "королек" = "kingling" for unknown reason))]		Branches, Flower, Fruit, Root	Forest, Garden
<b>Eleagnaceae</b>					
<i>Hippophaë rhamnoides</i> L. (RA)	Not used	ქაცვი (katsvi)	ტყრინი (t'q'rini)	No use	Forest
<b>Equisetaceae</b>					
<i>Equisetum arvense</i> L.	Medicinal (Urinary problems Wounds)	დათვისფანჩარა (datvis panchara), შვიტა (shvit'a); [varieties:დათვისფანჩარა (datvis panchara), დათვისფანჩარი (datvis panchari), დათვიფანჩარა, დათვიბალახა (datvipanchara (bear's pubic), more politely datvibalakha bear's grass), ვირიძუა (viridzua), ნადვებალახი, ვირიძუა (nadzva balakhi, viridzua)]		Leaf, Shoot	Forest
<b>Ericaceae</b>					
<i>Vaccinium arctostaphylos</i> L.	Food (Beer, Human food, Tea, Wine); Medicinal (Diabetes, Diarrhea, Sord, Stomach, Tea, Tincture)	მოცვი (ludi motsvi), მოცვი (motsvi), მოცვიმაღალი (motsvi maghali)		Leaf, Fruit	Forest
<i>Vaccinium myrtillus</i> L.	Food (Human food); Medicinal (Tea, Tincture)	მთისმოცვი (mtis motsvi)	მოდგინარი (modginari)	Fruit, Leaf	Forest
<b>Euphorbiaceae</b>					
<i>Aleurites moluccanus</i> (L.) Willd. (GU)	Food (Oil)			Fruit	Garden
<i>Euphorbia macroceras</i> Fisch. & C.A. Mey. (GU)	Medicinal (Tooth pain)	რძიარძია (rdziardzia)		Leaf, Shoot	Forest
<b>Fabaceae</b>					
<i>Cicer arietinum</i> L. (GU)	Food (Human food)	მუხუდო (mukhudo)		Seed	Garden
<i>Galega orientalis</i> Lam. (GU)	Medicinal (Sold)	ხბომუბლა (khboshubla)		Whole plant	Forest
<i>Glycine max</i> (L.) Merr.	Food (Human food)	სოია (soia)	იაპონია (iap'onia)	Seed	Garden
<i>Lathyrus roseus</i> Steven (RA)	Food (Pkhali)	არჯაკელი (arjak'eli)	ზერჩო (zercho Svan.)	Leaf, Shoot	Forest
<i>Phaseolus sativus</i> L.	Food (Human food)	გრძელილობიო (grdzeli lobio), ლობიო (lobio); [varieties:ბათუმურა (batumura), დაბალილობიო (dabali lobio), კუტილობიო (kuti lobio), სარისლობიო (maghali (saris) lobio)]		Seed	Garden
<i>Pisum sativum</i> L. (GU)	Food (Human food)	ბარდა (barda)		Seed	Garden
<i>Psoralea acaulis</i> Steven ex M. Bieb. (GU)	Veterinary (Swollen belly in cows)	ჯიგლიგე (jiglige)		Root	Forest

(Contd.)

Table 1 — Plants used in Guria and Racha (*Contd.*)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<i>Robinia pseudoacacia</i> L.	Animal food (Bees); Construction (Fences, Posts, Timber); Food (Pickled); Fuel (Firewood); Utensils and tools (Beehives, Rope, Tool handles, Tools, Walking sticks)	აკაცია (akatsia), აკაცია, ცრუაკაცია (ak'atsia, tsruak'atsia)		Bark, Stem, Young Shoot	Forest, Garden
<i>Trifolium</i> sp. (GU)	Food (Pkhali)	სამყურა (samq'ura)		Leaf	Forest
<i>Trigonella caerulea</i> (L.) Ser.	Food (Human food, Svan salt)	ულუმბო (ulumbo), შამბრიკა (shambrika)	უცხოსუნელი (utskho suneli Svan.)	Seed	Garden, Imported
<i>Vicia faba</i> L.	Food (Human food)	ცერცვი (tsertsvi)		Seed	Garden
<i>Vigna angularis</i> (Willd.) Ohwi & H. Ohashi (GU)	Food (Human food)	აზუკი (azuk'i)	საკადრისა (sak'adrisa)	Seed	Garden
<b>Fagaceae</b>					
<i>Castanea sativa</i> Mill.	Construction (Fences, Timber); Food (Human food); Fuel (Firewood); Utensils and tools (Carts, Furniture, Tool handles, Walking sticks)	წაბლა (ts'abla), წაბლი (ts'abli)		Flower, Fruit, Leaf, Stem	Forest, Garden
<i>Fagus orientalis</i> Lipsky	Construction (Fences, Timber); Food (Human food); Fuel (Firewood); Utensils and tools (Household utensils, Tool handles)	წიფელი (ts'ipeli)		Fruit, Stem	Forest
<i>Quercus iberica</i> Steven ex M. Bieb. (RA)	Construction (Timber)	მუხა (mukha)		Stem	Forest
<i>Quercus pontica</i> C. Koch & K. Koch	Construction (Timber); Fuel (Firewood); Utensils and tools (Furniture)	პონტოსმუხა (p'ont'os mukha)		Stem	Forest
<i>Quercus</i> sp.	Construction (Timber); Fuel (Firewood)	მუხა (mukha), ტოტა (t'ot'a)		Stem	Forest
<b>Fistulinaceae</b>					
<i>Fistulina hepatica</i> (Schaeff.) With. (RA)	Food (Human food)	გვიძელა (gvidzla)		Fruiting body	Forest
<b>FUNGI</b>					
" <i>Alnus barbata</i> fungus" (GU)	Food (Human food)	მურყანისოკო (murq'anisoko)		Fruiting body	Forest
Fungus sp. 33 (RA)	Food (Human food)	გიგოჭარჩა (glichorcha)		Fruiting body	Forest
Fungus sp. 34 (RA)	Food (Human food)	კეკელა (kekela)		Fruiting body	Forest
Fungus sp. 35 (GU)	Food (Human food)			Fruiting body	Forest
Fungus sp. 36 (RA)	Food (Human food)	კურილაზკატუმო (kurdlisakatumo)		Fruiting body	Forest
Fungus sp. 38 (RA)	Food (Human food)	მუსლიანკა (maslianaka)		Fruiting body	Forest
Fungus sp. 41 (GU)	Food (Human food)	მუშმალა (mushmala)		Fruiting body	Forest
Fungus sp. 43 (RA)	Food (Human food)	სერია (sercho)		Fruiting body	Forest
Fungus sp. 44 (RA)	Food (Human food)	საყლავა (suklava)		Fruiting body	Forest
Fungus sp. 45 (RA)	Food (Human food)	ტაგუნა (taguna)		Fruiting body	Forest
Fungus sp. 46 (RA)	Food (Human food)	ტაში (tashi)		Fruiting body	Forest
Fungus sp. 47 (RA)	Food (Human food)	ტიორული (tiorsli)		Fruiting body	Forest
Fungus sp. 48 (RA)	Food (Human food)	ტალიჩა (tlichai)		Fruiting body	Forest
Fungus sp. 49 (RA)	Food (Human food)	ტრიფელი (trifeli)		Fruiting body	Forest

*(Contd.)*

Table 1 — Plants used in Guria and Racha (Contd.)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
Fungus sp. 52 (RA)	Food (Human food)	თვინინელი (tvalinella)		Fruiting body	Forest
<b>Gentianaceae</b>					
<i>Centaureum erythraea</i> Rafn. (RA)	Medicinal (Digestive)	ასისთავა (asistava)		Leaf, Shoot	Forest
<i>Gentiana cruciata</i> L. (RA)	Not used	ჯვრისებრინაღველა (jvrisebri naghvela)		No use	Forest
<i>Gentiana septemfida</i> Pall. (RA)	Not used	ნაღველა (naghvela)		No use	Forest
<b>Geraniaceae</b>					
<i>Erodium cicutarium</i> (L.) L'Hér. ex Aiton (RA)	Food (Pkhali)	სავარცხელა (savartskhela)	ბატიფეხა (bat'ipekha)	Leaf, Shoot	Forest
<i>Geranium</i> sp. (RA)	Food (Human food)	ნემსიწვერა (nemsits'vera)	ოკროსბეჭედა (okrosbech'eda)	Leaf, Shoot	Forest
<b>Grossulariaceae</b>					
<i>Ribes biebersteinii</i> Berl. ex DC (RA)	Food (Human food)	მოცხარი (motskhari)		Fruit	Garden
<i>Ribes grossularia</i> L. (RA)	Food (Human food)		ოფლენდ (ophleend Svan.)	Fruit	Garden
<i>Ribes nigrum</i> L.	Food (Human food)	შავიმოცხარი (shavi motskhari)		Fruit	Garden
<i>Ribes rubrum</i> L. (RA)	Food (Human food)	მოცხარი (motskhari)		Fruit	Garden
<i>Ribes</i> sp.	Food (Human food)	მოცხარი (motskhari)	სმაროდინა (smarodina)	Fruit	Forest, Garden
<i>Ribes uva-crispa</i> L. (RA)	Food (Human food)	ხურტკმელი (khurt'k'meli)	ხურტკმელა (khurt'k'mela)	Fruit	Forest
<b>Guttiferae</b>					
<i>Hypericum perforatum</i> L.	Medicinal (Anti-inflammatory, Diarrhea, Fertility, Gum inflammation, Haemorrhoids, Liver, Nerves, Tea, Wounds)	კრაზანა (k'razana)		Leaf, Shoot	Forest, Garden
<b>Helleboraceae</b>					
<i>Helleborus caucasicus</i> R. Br.	Medicinal (Wounds); Veterinary (Wounds in cattles and horses)	ხარისძირა (kharisdzira)		No use	Forest
<b>Hyacinthaceae</b>					
<i>Ornithogalum</i> sp. (GU)	Food (Pkhali)	ძაღლიორა (dzaghl'niora)	ჩიტისტავა (chit'istava)	Whole plant	Forest
<i>Scilla siberica</i> Andrews (GU)	Food (Human food, Pkhali)	ჩიტისტავა, ჭუტიაფხალი, ნიგვზისძირა (chit'istava, ch'ut'ia pkhali, nigvzisdzira)		Leaf, Shoot	Forest
<b>Indet</b>					
Indet. 1 (GU)	Medicinal (Wounds)	ჩიაჩუა (chiachua)		Leaf	Forest, Garden
Indet. 2 (GU)	Food (Pkhali)	კაკია (k'ak'ia (with small white flowers))		Leaf, Shoot	Forest
Indet. 3 (GU)	Food (Pkhali)	ფთაშეჭრილა (prtashech'vila)	მინდვრისფხალი (mindvris pkhali)	Leaf, Shoot	Forest
Indet. 4 (GU)	Utensils and tools (Tools)			Stem	Garden
<b>Juglandaceae</b>					
<i>Juglans mandshurica</i> Maxim. (GU)	Food (Human food, Tea)	პეკანი (p'ek'ani)		Fruit	Garden
<i>Juglans regia</i> L.	Construction (Timber); Food (Human food, Svan salt, Tea); Utensils and tools (Tool handles)	კაკალი (k'ak'ali)	ნიგოზი (nigozi)	Fruit, Root, Seed, Stem	Forest, Garden
<i>Pterocarya pterocarpa</i> (Michx.) Kunth ex Iljinsk. (GU)	Food (Human food)	ლაფანა (lapani)		Fruit	Garden

(Contd.)

Table 1 — Plants used in Guria and Racha (Contd.)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<b>Lamiaceae</b>					
<i>Clinopodium vulgare</i> L. (GU)	Medicinal (Unspecified)	მოპიტნაო (mopit'nao)		Leaf	Forest
<i>Lamium album</i> L.	Food (Human food, Pkhali)	ყვავილოვანიჯინჭარა (q'avilovani jinch'ara), ჭინჭრისდედა (ch'inch'ris deda)	ყვავილოვანიჯინჭარა (q'avilovani jinch'ara), ჯიმჭრისმაცილობელი (jimch'ris matsilobeli)	Leaf, Shoot	Forest
<i>Leonotis leonurus</i> (L.) R. Br.	Food (Pkhali); Medicinal (Unspecified)	ლენიტისი (leonit'isi)		Leaf, Shoot	Forest, Garden
<i>Leonurus quinquelobatus</i> Gilib. var. <i>caucasicus</i> Krestovsk. (RA)	Medicinal (Tea)	შავბალახა (shavbalakha)		Leaf, Shoot	Forest
<i>Melissa officinalis</i> L. (GU)	Medicinal (Nerves, Tea)	ბარამბო (barambo), კამლაბალახი (k'amp'labalaxhi), კამლოსბალახი (k'amp'lis balaxhi)	კამლაბალახი (k'amp'labalaxhi)	Leaf, Shoot	Forest
<i>Mentha longifolia</i> (L.) L.	Food (Human food, Pkhali, Sauce, Tea); Medicinal (Nerves, Sold, Tincture)	ტეისპიტნა (t'e'is p'it'na)	ვირიპიტნა (virip'it'na)	Leaf, Shoot	Forest, Garden
<i>Mentha pulegium</i> L.	Food (Human food); Medicinal (Flu)	პიტნა (p'it'na)		Leaf, Shoot	Garden
<i>Mentha</i> sp.	Food (Human food)	პიტნა (p'it'na)		Leaf, Shoot	Garden
<i>Mentha x piperita</i> L.	Food (Human food); Medicinal (Nerves, Tincture)	ბალისპიტნა (baghis pit'na), პიტნა (p'it'na)		Leaf, Shoot	Forest, Garden
<i>Ocimum basilicum</i> L.	Food (Human food)	რეჰანი (rehani); [varieties: საშკვლავი (sashk'vlavi), საშტრამი (sash'trami), red]		Leaf, Shoot	Garden
<i>Origanum vulgare</i> L. (RA)	Food (Human food, Pkhali, Spice sold); Medicinal (Kidneys, Tea)	თავშავა (tavshava)		Leaf, Shoot	Forest
<i>Rosmarinus officinalis</i> L. (GU)	Medicinal (Unspecified)			Leaf	Garden
<i>Salvia glutinosa</i> L. (RA)	Not used	სალბი (salbi)		No use	Forest
<i>Salvia verticillata</i> L. (RA)	Animal food (Fodder cows); Food (Pkhali); Medicinal (Wounds)	დაჯირა (dajira)	ყვანჩალა (q'vanchala)	Leaf, Shoot	Forest, Garden
<i>Satureja hortensis</i> L.	Food (Human food, Tea)	კონდარი (kondari)		Leaf, Shoot	Garden
<i>Satureja laxiflora</i> C. Koch (GU)	Medicinal (Diabetes, Fertility)	ველურიკონდარი (veluri qondari)		Leaf, Shoot	Forest
<i>Satureja spicigera</i> Boiss.	Food (Human food, Pkhali)	კონდარი (kondari)		Leaf, Shoot	Garden
<i>Stachys</i> sp. (GU)	Medicinal (Unspecified)			Leaf	Forest
<i>Teucrium</i> spp. (RA)	Medicinal (Diabetes)	კუტიბალახი (k'ut'i balaxhi)		Leaf, Shoot	Forest
<i>Thymus caucasicus</i> Willd. ex Benth. (GU)	Food (Human food); Medicinal (Tea)	კონდარი (kondari)		Leaf, Shoot	Garden
<i>Thymus</i> sp.	Food (Human food, Tea); Medicinal (Flu)	ბეგკონდარა (begkondara)		Leaf, Shoot	Garden
<i>Ziziphora serpyllacea</i> M. Bieb. (RA)	Food (Human food)	ურცი (urtsi)		Leaf	Garden
<b>Lauraceae</b>					
<i>Laurus nobilis</i> L. (GU)	Food (Human food)	დაფნა (dapna)		Leaf	Garden
<i>Persea americana</i> Mill. (GU)	Food (Human food)	ავოკადო (avok'ado)		Fruit	Garden
<b>Lepiotaceae</b>					
<i>Macrolepiota procera</i> (Scop.) Springer	Food (Human food)	წეროსწვივა (ts'erosts'viva), ცხერცეო (ts'erets'o), ცხერა (tsera)	ხარხუშა (kharkhusha)	Fruiting body	Forest

(Contd.)

Table 1 — Plants used in Guria and Racha(Contd.)

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<b>Liliaceae</b>					
<i>Lilium szovitsianum</i> Fisch. & Avé-Lall. (RA)	Food (Human food, Pkhali)	მთისშროშანი (mtis shroshani)	თიორში (tiorshi), კიტრა (k'it'ra)	Fruit, Leaf, Shoot	Forest
<b>Linaceae</b>					
<i>Linum usitatissimum</i> L. (GU)	Food (Human food); Utensils and tools (Fiber)	სელი (seli)		Seed	Garden
<b>Lycopodiaceae</b>					
<i>Lycopodium annotinum</i> L. (RA)	Medicinal (Wounds)			Spores	Forest
<b>Lythraceae</b>					
<i>Lythrum salicaria</i> L. (RA)	Not used	ცოცხმაგარა (tsotskhmagara)		No use	Forest
<i>Punica granatum</i> L. (GU)	Food (Human food)	ბროწეული (brots'euli)		Fruit, Leaf, Shoot	Forest, Garden
<b>Magnoliaceae</b>					
<i>Liriodendron tulipifera</i> L. (GU)	Ornamental (Ornamental)	ხეტიტა (khet'it'a)		Whole plant	Garden
<i>Magnolia</i> sp. (GU)	Ornamental (Ornamental)	მაგნოლია (magnolia)		Whole plant	Garden
<b>Malvaceae</b>					
<i>Alcea rosea</i> L. (RA)	Food (Human food)	ბაღისტუხტი (baghis t'ukht'i)	რუსულიმლოქა (rusuli moloka)	Leaf	Forest
<i>Gossypium barbadense</i> L. (GU)	Utensils and tools (Fiber)			Seed	Garden
<i>Malva sylvestris</i> L. / <i>M. neglecta</i> L.	Food (Human food, Khachapuri, Pkhali)	ბალბა (balba)	მოლოქა (moloka), მოლოქი (moloki), დუხტიმლოქი (dukht'i moloki)	Leaf, Shoot	Forest
<b>Melanthiaceae</b>					
<i>Veratrum lobelianum</i> Bernh. (GU)	Veterinary (Against ticks, Skin parasites, Ticks)	შხამა (shkhama), ხაპუტრაკა (khap'ut'rak'a)		Leaf, Shoot	Forest
<b>Moraceae</b>					
<i>Ficus carica</i> L.	Food (Alcohol, Human food); Medicinal (Haemorrhoids); Veterinary (Cold in cows, Fever in cows)	ლეღვი (leghvi), ჩიტლეღვი (chit'leghvi); [varieties: თეთრლეღვა (tetrleghva), შავლეღვა (shavleghva), black, white]		Fruit, Leaf	Forest, Garden
<i>Morus alba</i> L.	Animal food (Silkworms); Construction (Timber); Food (Alcohol, Human food); Medicinal (Tincture); Utensils and tools (Panduri)	თუტა (tuta); [varieties: ბჟოლა (bzhola), ბჟოლი (bzholi), თეთრითუტა (tetri tuta (var. alba)), შავითუტა (shavi tuta (var. nigra)), black, white]		Fruit, Leaf, Stem	Garden
<b>Morchellaceae</b>					
<i>Morchella esculenta</i> (L.) Pers (RA)	Food (Human food)	(kharispashva)		Fruiting body	Forest
<b>Musaceae</b>					
<i>Musa x paradisiaca</i> L. (GU)	Food (Human food)	ბანანი (banani)		Fruit	Garden
<b>Myrtaceae</b>					
<i>Acca sellowiana</i> (O. Berg.) Burret (GU)	Food (Human food)	ფეიხოა (peikhoa)		Fruit	Garden
<i>Eucalyptus saligna</i> Sm. (GU)	Medicinal (Cough, Flu, Gargle)	ევკალიპტი (evk'alip't'i)		Leaf	Garden

(Contd.)

Table 1 — Plants used in Guria and Racha (*Contd.*)

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<b>Oleaceae</b>					
<i>Fraxinus excelsior</i> L.	Construction (Posts, Timber); Fuel (Firewood); Utensils and tools (Tool handles)	ივანი (ipani), კოპიტო (k'op'it'i)	წითელა (tzhithela Svan.), კოპიტო (k'op'it'i)	Stem	Forest
<i>Ligustrum vulgare</i> L. (RA)	Utensils and tools (Ink)	კვიდო (k'vido)		Bark	Forest
<i>Syringa vulgaris</i> L. (GU)	Medicinal (Headache, Pain)	იასამანი (iasamani)		Leaf	Forest
<b>Oxalidaceae</b>					
<i>Averrhoa carambola</i> L. (GU)	Food (Human food)	კარამბოლი (karamboli)		Fruit	Garden
<b>Papaveraceae</b>					
<i>Chelidonium majus</i> L.	Medicinal (Gallbladder, Liver, Warts)	ქრისტესისხლა (krist'esiskhla)		Latex, Leaf, Shoot, Whole plant	Forest
<b>Passifloraceae</b>					
<i>Passiflora incarnata</i> L. (GU)	Medicinal (Menstrual problems)			Leaf	Garden
<b>Physalacriaceae</b>					
<i>Armiliariella mellea</i> (Vahl) P. Kumm (RA)	Food (Human food)	მანჭკვალა (mantchkvala)		Fruiting body	Forest
<b>Phytolaccaceae</b>					
<i>Phytolacca americana</i> L. (GU)	Food (Wine)			Fruit	Forest, Garden
<b>Pinaceae</b>					
<i>Abies nordmanniana</i> (Steven) Spach	Construction (Fences, Roofing, Timber); Fuel (Firewood)	სოჭი (soch'i)	ჩიხრი (chikhri), ცველა (tsvela)	Stem	Forest
<i>Picea orientalis</i> (L.) Petern.	Construction (Timber); Fuel (Firewood)	ნაძვი (nadzvi), ცველა (tsvela)	ცველა (tsvela)	Stem	Forest
<i>Pinus kochiana</i> Klotzsch ex K. Koch	Construction (Timber); Fuel (Firewood)	ნაძვიგურიაში, კატარიაჭარაში (nadzvi in Guria, k'at'ari in Adjara), ფიჭვი (pich'vi)	ცველა (tsvela)	Cones, Stem	Forest
<b>Plantaginaceae</b>					
<i>Plantago lanceolata</i> L.	Fuel (Firewood); Medicinal (Anti-inflammatory, Digestive, Gastritis, Gastro intestinal system, Stomach, Wounds)	მრავალძარღვა (mravaldzarghva)		Leaf, Shoot	Forest
<i>Plantago major</i> L.	Food (Pkhali); Medicinal (Anti-inflammatory, Cough, Gastritis, Wounds)	მრავალძარღვა (mravaldzarghva)		Latex, Leaf, Shoot	Forest
<b>Pleurotaceae</b>					
<i>Pleurotus ostreatus</i> (Jacq.) P. Kumm. (RA)	Food (Human food)	ჩხბლა (ch'q'ubla), ხისსოკო (khis soko)		Fruiting body	Forest
<b>Pluteaceae</b>					
<i>Pluteus cervinus</i> (Schaeffer Fr.) P. Kumm. (RA)	Food (Human food)	ირმისრქა (irmis rqa)		Fruiting body	Forest
<b>Poaceae</b>					
<i>Bambusa</i> sp. (GU)	Food (Human food); Medicinal (Diabetes)	ბამბუკი (bambuk'i)		Stem, Young Shoot	Forest, Garden
<i>Cynodon dactylon</i> (L.) Pers. (GU)	Animal food (Fodder cows)	კლარტა (k'larta)		Leaf, Shoot	Garden

*(Contd.)*



Table 1 — Plants used in Guria and Racha(Contd.)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<i>Digitaria sanguinalis</i> (L.) Scop. (GU)	Animal food (Fodder cows)			Leaf, Shoot	Forest
<i>Festuca varia</i> Haenke (RA)	Animal food (Fodder cows); Utensils and tools (Stuffing for shoes)	წივანა (ts'ivana)		Leaf, Shoot	Forest
<i>Hordeum vulgare</i> L. (RA)	Food (Human food)	ორრიგა (orriga keri), კერი (keri)		Seed	Garden
<i>Molinia litoralis</i> Host (GU)	Construction (Roofing)	იმერულიისლი (imeruli isli)	ისლი (isli)	Stem	Forest, Garden
<i>Nardus stricta</i> L. (RA)	Animal food (Fodder cows)	ძიგვა (dzigva)		Leaf, Shoot	Forest
<i>Panicum crus-calli</i> L. (GU)	Animal food (Fodder cows); Food (Human food)	ჯალაყინი (jalaq'ini)		Leaf, Shoot	Forest
<i>Panicum milanjanum</i> Rendle	Food (Human food)	ფეტვი (phatvi)		Seed	Garden
<i>Setaria glauca</i> (L.) P. Beauv. (GU)	Animal food (Fodder cows)	ტრიესკუდა, თრიესკუდა (t'riesk'uda, t'riesk'uda), ყვითელიძურწა (q'viteli dzurts'a)	ტრიესკუდა, თრიესკუდა (t'riesk'uda, t'riesk'uda)	Leaf, Shoot	Forest
<i>Setaria italica</i> (L.) P. Beauv. (GU)	Food (Human food)	ფეტვი (pet'vi), ღომი (ghomi)	ფეტვი (pet'vi)	Seed	Garden
<i>Sorghum bicolor</i> (L.) Moench (GU)	Food (Human food)	ჩვეულეზრვიხორგო (chveulebrivi sorgo)		Leaf, Shoot, Seed	Forest, Garden
<i>Triticum aestivum</i> L. (RA)	Food (Human food)	ხორბალი (khorbali)		Seed	Garden
<i>Zea mays</i> L.	Food (Human food, Popcorn); Medicinal (Urinary problems); Utensils and tools (Mats)	ბამბუკი (bat'ibut'i), ბატიბუტი (bat'ibut'i), სიმინდი (simindi), ტკუჩასიმინდი (t'k'ucha simindi)		Fruit, Seed, Stigmata, Young Shoot	Garden
<b>Polygonaceae</b>					
<i>Polygonum alpinum</i> All. (RA)	Medicinal (Gastro intestinal system)		ლესირ (letsir Svan.)	Leaf	Forest
<i>Polygonum aviculare</i> L. (GU)	Medicinal (Pancreas)	მატიტელა (matitela)		Leaf, Shoot	Forest
<i>Polygonum carneum</i> C. Koch	Food (Human food, Pkhali); Medicinal (Cancer, Pancreas)	დვარულა (dvarula), მატიტელა (mat'it'ela)		Leaf, Shoot, Stem, Whole plant	Forest, Garden
<i>Polygonum glabrum</i> Willd.	Not used	სვინტრი (svint'ri)		No use	Forest
<i>Polygonum hydropiper</i> L. (GU)	Animal food (Fodder cows)	ჩაღანდრი (chaghandri)		Leaf, Shoot	Forest, Garden
<i>Rumex alpinus</i> L. (GU)	Animal food (Fodder cows); Food (Human food, Pkhali); Medicinal (Digestive, Haemorrhoids)	კიტრაკიტრი (k'it'rak'it'ri), ოღვალოგუროაში, კოკომჟავაჭარაში (oghvalo in Guria, k'ok'omzhava in Adjara), ღვალო (ghvalo)		Inflorescence, Leaf, Shoot, Stem	Forest
<i>Rumex</i> sp.	Food (Pkhali)	ღოლო (gholo)		Leaf, Shoot	Forest
<b>Polypodiaceae</b>					
<i>Polypodium vulgare</i> L. (RA)	Food (Human food); Medicinal (Cough, Wounds)	კილამურა (k'ilamura)	კილამორა (k'ilamora)	Root	Forest
<b>Portulacaceae</b>					
<i>Portulaca oleracea</i> L.	Food (Pkhali)	დანდური (danduri)	სუკანა (sukana)	Leaf, Shoot	Forest
<b>Primulaceae</b>					
<i>Cyclamen</i> sp. (GU)	Medicinal (Unspecified)	ყოჩივარდა (q'ochivarda)		Root	Forest

(Contd.)

Table 1 — Plants used in Guria and Racha (*Contd.*)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<i>Cyclamen vernum</i> (RA)	Sweet Medicinal (Sinusitis)	ქართულიციფივარდა (kartuli q'ochivarda)	კაწალკუწალა (k'ats'alk'uts'ala)	Bulb	Forest
<i>Lysimachia</i> sp. (RA)	Not used	ხახვთესლა (khakhvtesla)		No use	Forest
<i>Primula macrocalyx</i> Bunge (RA)	Food (Khachapuri, Pkhali)	ფურისულა (purisula)		Leaf, Shoot	Forest
<i>Primula</i> sp.	Food (Human food, Pkhali); Medicinal (Angina)	ფურისულა (purisula)	თიკნიყურა (tik'niq'ura), ვილისუნა (pilisuna), ფირისულა (pirisula)	Flower, Leaf, Shoot, Stem	Forest
<i>Primula woronowii</i> Losinsk. (RA)	Food (Pkhali)	ფურისულა (purisula)		Leaf, Shoot	Forest
<b>Psathyrellaceae</b>					
<i>Coprinopsis atramentaria</i> (Bull.) Redhead, Vilgalys & Moncalvo (RA)	Food (Human food)	მელანა, სილიო (melana sok'o, silio)		Fruiting body	Forest
<b>Pteridaceae</b>					
<i>Pteris cretica</i> L. (GU)	Medicinal (Unspecified); Veterinary (Antihelminthics)			Root, Stem	Forest
<b>Ramariaceae</b>					
<i>Ramaria flava</i> (Schaeff.) Quél. (RA)	Food (Human food)	საჩეჩელა (sachechela)		Fruiting body	Forest
<b>Ranunculaceae</b>					
<i>Clematis vitalba</i> L.	Food (Pkhali)	ინგრიხე (ingrikhe)	ციცაბალბა (tsitsabalba Svan.)	Branches, Leaf, Shoot	Forest
<i>Ranunculus repens</i> L. (GU)	Food (Pkhali)	ნიახურა (niakhura)	წყლისნიახურა (ts'q'lis niakhura)	Whole plant	Forest
<i>Thalictrum foetidum</i> L. (RA)	Not used	სამატლე (samat'le)		No use	Forest
<b>Rhamnaceae</b>					
<i>Frangula alnus</i> Mill. (RA)	Construction (Timber); Medicinal (Scabies); Utensils and tools (Poles for beans, Snowshoes)	ლუკუმფხა (luk'umpkha), ლუკუმფხა (luk'upkha), ხეჭრელი (khech'reli)	ლუკუმფხა (luk'umpkha)	Bark, Stem	Forest
<i>Rhamnus imeretina</i> Booth. Petz. & Kirchn. (RA)	Food (Human food); Medicinal (Digestive)	იმერულიხეჭრელი (imeruli khech'reli)	გოგოსა (gogosa), დათვინიგოზა (datvinoza), ხეშავი (khesnavi)	Fruit	Forest
<i>Ziziphus spina-christi</i> (L.) Desf. (GU)	Ornamental (Ornamental)			Whole plant	Forest
<b>Rhododendraceae</b>					
<i>Rhododendron caucasicum</i> Pall.	Animal food (Fodder cows); Medicinal (Arthritis)	დეკა (dek'a)		Leaf	Forest
<i>Rhododendron luteum</i> Sweet	Construction (Fences); Food (Human food); Medicinal (Unspecified); Veterinary (Ticks)	იელა (iela), იელი (ieli), შკერი (shk'eri)	ელი (eli)	Flower, Leaf, Stem	Forest
<i>Rhododendron ponticum</i> L.	Construction (Fences and posts, Shelters, Timber); Food (Human food); Medicinal (Tea); Utensils and tools (Baskets)	შკერი (shk'eri)		Leaf, Stem	Forest
<b>Rosaceae</b>					
<i>Agrimonia eupatoria</i> L. (RA)	Not used	ბირკავა (birk'ava)		No use	Forest
<i>Alchemilla</i> spp. (RA)	Not used	მარმუჩი (marmuch'i)		No use	Forest
<i>Aruncus vulgaris</i> Raf.	Food (Human food, Pkhali)	მეკენძალა (mek'endzala)	მეკეხი (metchekhi Svan.), ნეკენძალა (nek'endzala)	Leaf, Shoot	Forest, Garden
<i>Crataegus</i> sp. "black" (RA)	Medicinal (Heart)	კუნელი (k'uneli)	კურნელა (k'urnela)	Fruit	Forest

(Contd.)

Table 1 — Plants used in Guria and Racha (Contd.)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<i>Crataegus sp. "red" (RA)</i>	Medicinal (Heart)	კუნელი (k'uneli)	კურნელა (k'urnela)	Fruit	Forest
<i>Crataegus pentagyna</i> Waldst. (RA)	Food (Human food); Medicinal (Heart)	კუნელი (k'uneli)		Fruit	Forest
<i>Crataegus sp. (RA)</i>	Medicinal (Heart); Utensils and tools (Tool handles)	კუნელი (k'uneli)	კუნელა (k'unela), კურნელა (k'urnela)	Fruit, Stem	Forest
<i>Cydonia oblonga L.</i>	Food (Human food); Medicinal (Bleeding, Cough, Diabetes)	კომში (k'omshi); [varieties: ზია (bia), მახრჩობელა, ვაშლა (mkhrchobela, vashla)]		Flower, Fruit, Leaf	Garden
<i>Eriobotrya japonica</i> (Thunb.) Lindl. (GU)	Food (Human food)	მუშმალა, იაპონურიზღმარტლი (mushmala, iap'onuri zghmart'li)	მუშმალა (mushmala)	Fruit	Garden
<i>Filipendula vulgaris</i> Moench (RA)	Not used	ქაფურა (kapura)		No use	Forest
<i>Fragaria vesca L.</i>	Food (Human food, Tea)	მარწყვი (marts'q'vi)		Fruit	Forest, Garden
<i>Fragaria x ananassana</i> Duchesne ex Rozier	Food (Human food)	მარწყვი (marts'q'vi)		Fruit	Garden
<i>Malus domestica L.</i>	Food (Human food, Svan salt); Utensils and tools (Snowshoes)	ვაშლი (vashli); [varieties: ანტონოვკა (antonovk'a (Canadian renet)), ბროცკა (brotsk'a), ბუკისვაშლი (buk'is vashli), გოლდენი (goldeni), დემირა (demira), თეთრივაშლი (tetri vashli), კეხურა (k'ekhura), ლიმონისვაშლი (limonis vashli), მიჩურინისვაშლი (Michurin), ნაცარა (natsara), სამეფო (samepo), სანეფო (sanefo), სახაჭუნა (sakhach'una), სენაპი (senap'i), შამპანსკივაშლი (shampanski vashli), შამპანური (shampanuri), შაფრანი (shaprani), ცარსკი, ერასტისვაშლი (tsarsk'i, erast'is vashli (eErast'i male name)), ხაზარულა (khazarula), antonovka, champagne, garden apples, ice apples, kekhura, lechkhumi sinaphi, qhinuli, red, samepho, sinaphi]		Fruit	Garden
<i>Malus orientalis</i> Uglizk.	Food (Alcohol, Human food); Medicinal (Sold)	მაჟალო (mazhalo), პანტავაშლი (p'ant'avashli)		Fruit	Forest, Garden
<i>Malus pumila</i> Mill. var. <i>paradisiaca</i> C.K. Schneid. (GU)	Food (Human food)	სამოთხისვაშლი (samotkhis vashli)		Fruit	Garden
<i>Mespilus germanica L.</i>	Food (Human food)	ზღმარტლი (zghmart'li), სხმარტლი (skhmart'li)	სხმარტლი (skhmart'li)	Fruit	Forest, Garden
<i>Potentilla erecta (L.)</i> Raeusch. (GU)	Medicinal (Antibiotic)	მარწყვაბალახა (marts'q'vabalakha)		Leaf, Shoot	Forest
<i>Potentilla reptans L.</i> (GU)	Medicinal (Unspecified)	მარწყვაბალახა (marts'q'vabalakha)		Leaf, Shoot	Forest
<i>Prunus armeniaca L.</i> (GU)	Food (Human food)	გარგარი (gargari)		Fruit	Garden
<i>Prunus avium (L.) L.</i>	Food (Human food)	ბალი (bali); [varieties: ალიქმალიქა (alikalika), ბიბილა (bimbila), თათრულა (tatrula), თეთრიბალი (tetri bali), კახამბალი (k'akhambali), მაგარა (magara), მაგარაბალი (magara bali), შავიბალი (shavi bali), შამბალა (shambala), black, red, white]		Fruit	Garden

(Contd.)

Table 1 — Plants used in Guria and Racha ( <i>Contd.</i> )					
Family/Scientific name	Use category	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used	Parts	Location
GU = only used in Guria RA = only used in Racha-Lechkhumi			Svan. = Svanetian Tush. = Tushetian Rach. = Rachian		
<i>Prunus avium</i> (L.) L. var. <i>silvestris</i>	Cultural (Protection); Food (Human food)	ბალამწარა (balamtsara), მწარებალი (mts'are bali), შამბალა (shambala)		Branches, Fruit, Stem	Forest
<i>Prunus cerasus</i> L.	Food (Human food)	ალუბალი (alubali), ვიშნაბალი (vishnabali)		Fruit	Garden
<i>Prunus divaricata</i> Ledeb.	Food (Alcohol, Human food, Sauce, Tkhemali, Wine)	ტყემალი (t'q'emali); [varieties: გულდედავასტყემალი (guldedava t'q'emali), კორკიმელი (k'ork'imeli), ოტური (ot'uri), red, yellow]		Fruit	Forest, Garden
<i>Prunus insitiita</i> L.	Food (Alcohol, Human food)	ღოღნოშო (ghoghnoشو)		Fruit	Garden
<i>Prunus laurocerasus</i> L.	Animal food (Bees, Fodder cows, Fodder pigs); Food (Human food, Wine); Fuel (Firewood); Medicinal (Tincture); Utensils and tools (Crafts, Tool handles)	წყავი (ts'q'avi)	ლესკური (leshk'ri), ლესქი (leshki)	Fruit, Leaf, Shoot, Stem	Forest, Garden
<i>Prunus padus</i> L. (GU)	Food (Human food)			Fruit	Forest
<i>Prunus persica</i> (L.) Batsch	Food (Human food)	ატამი (at'ami)		Fruit	Garden
<i>Prunus spinosa</i> L.	Food (Alcohol, Human food)	კვინჩხაი (kvinchkhai), კვრინჩხი (kvrinchkhi)		Fruit	Forest, Garden
<i>Prunus vachushtii</i> Bregaze (RA)	Food (Human food)	ალუჩა (alucha)		Fruit	Garden
<i>Prunus x domestica</i> L.	Food (Alcohol, Human food)	ქლიავი (kliavi); [varieties: თეთრიქლიავი (tetri kliavi), თეთრხილა (tetrkhila), ოტორა (ot'ora), ოტურე (ot'ure), ოტური (ot'uro), ღოღნაშო (ghoghnasho), შავიქლიავი (shavii kliavi), ჭანჭური (ch'anch'uri), alibukhari, black, tzqhalqliava, white]		Fruit	Forest, Garden
<i>Pyracantha coccinea</i> M. Roem. (RA)	Food (Tea)	ჩიტავაშლა (chit'avashla)	სირვაშლა (sirvashla)	Flower	Forest
<i>Pyrus caucasica</i> Fed.	Food (Alcohol, Human food); Medicinal (Cholagogic, Sold, Tincture); Utensils and tools (Household utensils)	პანტა (p'ant'a), პანტამსხალი (p'ant'a mskhali); [varieties: კვაჭიჭამსხალი (k'vach'ich'a mskhali), პანტამსხალი (p'ant'a mskhali)]		Fruit, Stem	Forest
<i>Pyrus communis</i> L.	Food (Human food); Fuel (Firewood); Medicinal (Diabetes, Tincture, Urinary problems)	მსხალი (mskhali); [varieties: ანასელისმსხალი (anaseulis mskhali), ბამბამსხალი (bamba mskhali), ბიამსხალი (biamskhali), გელოურა (geloura), გულაბი (gulabi), ვარკეჯული (varkejuli), თავრეჭული (tavrech'uli), თათრულა (tatrula), კაცითავა (k'atsitava), კაცისთავე (k'atsitave), კვაჭიჭამსხალი (k'vach'ich'a mskhali), კვიჭები (kvich'ebi), კვიჭიჭამსხალი (k'vich'ich'a mskhali), მოძღვრისმსხალი (modzghvris mskhali), ნაცარა (natsara), ნიკადო (nik'ado), საზამტრო (sazamtro), საკვირვობო (sak'vir'obo), სასელა (sasela), სასეროანუსაივანობომსხალი (sasero or saivanobo mskhali), საყვილიამსხალი (saq'vilitia mskhali), სესელა (sesela), ფრანგულა (prangula), ფრანგულა, კაიფერა (prangula, kaipera), ხეჭეჭურა (khech'ech'ura), ხეჭეჭური (khech'ech'uri), ხეჭეჭური (xech'ech'uri), gulabi, katsithava, kefri, khetchetchuri, kiferi, shavmskhala]		Fruit, Leaf, Stem	Garden

(Contd.)

Table 1 — Plants used in Guria and Racha(Contd.)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<i>Rosa</i> sp.	Food (Human food, Tea); Medicinal (Kidneys, Sold)	ასკილი (ask'ili)		Fruit, Leaf	Forest
<i>Rubus fruticosus</i> L.	Food (Human food, Wine)	მაყვალი (maq'vali)	ბარდი (bardi), უეკლომაყვალი (uek'lo maq'vali)	Fruit	Forest, Garden
<i>Rubus ideaus</i> L.	Food (Human food)	ჟოლო (zholo)		Fruit	Garden
<i>Rubus</i> sp. (RA)	Food (Human food)	მაყვალი (maq'vali)		Fruit	Forest, Garden
<i>Shepherdia</i> sp. (RA)	Food (Human food)			Leaf	Garden
<i>Sorbus aucuparia</i> K. Koch	Construction (Fences); Medicinal (Digestive, Sold, Urinary problems)	ცირცელი, ჭნავი (tsirtseli, ch'navi), ჭუნავი (ch'k'navi)		Fruit, Stem	Forest
<i>Sorbus caucasigena</i> Kom.	Medicinal (Digestive, Sold)	ცირცელი, ჭნავი (tsirtseli, ch'navi)		Fruit	Forest
<i>Sorbus torminalis</i> Crantz.	Medicinal (Digestive)	თამელი (tameli)	დათვიხალა (datvikhala)	Fruit	Forest
Rosaceae sp. (GU)	Food (Human food, Tkhemali)	ათჰამი (at'ami), თექმალი (t'q'emali)		Fruit	Garden
<b>Rubiaceae</b>					
<i>Coffea arabica</i> L. (GU)	Food (Human food)			Seed	Garden
<b>Ruscaceae</b>					
<i>Ruscus hypophyllum</i> L. (GU)	Animal food (Fodder cows)	ძმერხლი (dzmerkhli)		Leaf, Shoot	Forest
<b>Russulaceae</b>					
<i>Lactarius deliciosus</i> (L. ex Fr.) S.F. Grey (RA)	Food (Human food)	მჭადა (mtchada), ჩადუ (chado)	ჭადუა (tchadua Svan.)	Fruiting body	Forest
<i>Lactarius piperatus</i> (L.) Pers. (RA)	Food (Human food)	არქაოსოკო (arq'a soko), ფაჩაზი (pach'ich'a)	ბერუითავი (beruithavi Svan.)	Fruiting body	Forest
<i>Russula adusta</i> (Pers.) Fr. (RA)	Food (Human food)	ჩოხაშავა (chokhashava)		Fruiting body	Forest
<i>Russula rosea</i> Pers. (RA)	Food (Human food)	წითლიო (ts'itlio)		Fruiting body	Forest
<b>Rutaceae</b>					
<i>Citrus limon</i> (L.) Burm. f. (GU)	Food (Human food)	ლიმონი (limoni)		Fruit	Garden
<i>Citrus reticulata</i> Blanco (GU)	Food (Human food)	მანდარინი (mandarini)		Fruit	Garden
<i>Ruta graveolens</i> L. (GU)	Medicinal (Unspecified)	ტეგანი (t'egani)	ტაგანი (t'agani)	Stem	Forest
<b>Salicaceae</b>					
<i>Populus</i> sp. (GU)	Construction (Timber); Fuel (Firewood)	ვერხვი (verkhvi)		Stem	Forest
<i>Populus tremula</i> L. (GU)	Construction (Timber); Fuel (Firewood)	ვერხვი (verkhvi)		Stem	Forest
<i>Salix alba</i> L. (RA)	Construction (Fences); Medicinal (Analgesic); Utensils and tools (Baskets, Tool handles)	ტირიფი (t'iripi), წნორი (ts'nori)	ძეწნა (dzets'na)	Stem	Forest
<i>Salix caprea</i> L. (RA)	Construction (Fences); Food (Beer); Medicinal (Analgesic); Utensils and tools (Baskets, Household utensils, Tool handles)	მდგნალი (mdgnali)	ჭიჭუნა (chitchuni Svan.), ტირიფი (t'iripi), ფართოფოთლიანი ტირიფი ო (partopotliani t'iripi), ძეწნა (dzets'na)	Branches, Stem	Forest
<b>Scrophulariaceae</b>					
<i>Digitalis ferruginea</i> L.	Medicinal (Haemorrhoids); Veterinary (Chicken haemorrhoids, Digestion in chickens)	ფუტკარა (put'k'ara)		Leaf, Shoot, Whole plant	Forest
<i>Scrophularia lateriflora</i> Trautv. (RA)	Not used	შავწამალა (shavts'amala)		No use	Forest
<b>Simaroubiaceae</b>					
<i>Ailanthus altissima</i> (Mill.) Swingle (GU)	Construction (Timber)	ქოთიახე (kotia khe), ხემყრალი (khemq'rali)		Stem	Forest

(Contd.)

Table 1 — Plants used in Guria and Racha (*Contd.*)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<b>Smilacaceae</b>					
<i>Smilax excelsa</i> L.	Food (Human food, Pkhali, Salad); Medicinal (Furuncles)	ბარდი (bardi), ეკალა (ek'ala), ეკალილიჭი (ek'alghich'i), ეკალიჭი (ek'alghich'i), ძიგურა (dzigura)	ეკალა (ekala Svan.)	Branches, Leaf, Young Shoot	Forest
<b>Solanaceae</b>					
<i>Capsicum annuum</i> L.	Food (Human food, Svan salt)	წიწაკა (ts'its'ak'a), წიწაკა (ts'tsak'a); [varieties: მწარეწიწაკა (mts'are ts'its'ak'a), პიმპილი (p'imp'ili)]		Fruit	Garden
<i>Capsicum annuum</i> L. (Sweet Bulgarian)	Food (Human food)	წიწაკა (ts'its'ak'a), წიწაკაწითელი (tztizaka tzitheli); [varieties: ბულგარულიწიწაკა (bulgaruli ts'its'ak'a)]		Fruit	Garden
<i>Datura stramonium</i> L. (GU)	Not used	ლემა (lema)		Whole plant	Forest
<i>Hyoscyamus niger</i> L. (GU)	Not used	ლენცოვა (lentsopa)		Whole plant	Forest
<i>Lycopersicon esculentum</i> L.	Food (Human food, Pickled, Pkhali)	პამიდორი (p'amidori), პომიდორი (p'omidori)		Fruit, Young leaf	Garden
<i>Nicotiana tabacum</i> L. (GU)	Cultural (Protection, Smoking)	წეკო (ts'ek'o)		Leaf	Garden
<i>Physalis alkekengi</i> L. (GU)	Food (Human food)	ონტკოვა (ont'k'opa)		Fruit	Forest
<i>Solanum meloena</i> L.	Food (Human food)	ბადრიჯანი (badrijani), პატრიჯანი (pat'rijani)		Fruit	Garden
<i>Solanum nigrum</i> L.	Medicinal (Rheumatism, Unspecified, Wounds)	ძაღლყურძენა (dzaghql'urdzena)		Fruit, Root	Forest
<i>Solanum tuberosum</i> L.	Food (Human food, Pkhali)	კარტოფილი (k'art'opili)		Bulb, Root, Young leaf	Forest, Garden
<b>Staphyleaceae</b>					
<i>Staphylea colchica</i> Steven	Food (Human food, Pkhali, Pickled)	ჯონჯოლი (jonjoli)	ნიორკავა (niorkava Svan.)	Flower, Fruit, Young Shoot	Forest, Garden
<b>Strophariaceae</b>					
<i>Hypholoma fasciculare</i> (Huds.) P. Kumm. (RA)	Food (Human food)	მეტხატული (mat'qh'uqrq)		Fruiting body	Forest
<b>Suillaceae</b>					
<i>Suillus granulatus</i> (L.) Roussel (RA)	Food (Human food)	დუმასოკო (duma soko)		Fruiting body	Forest
<b>Taxaceae</b>					
<i>Taxus baccata</i> L.	Construction (Timber); Food (Human food); Utensils and tools (Tool handles, Tools)	უთხოვარი (utkhovari), ურთხელი (უთხოვარი) (urtkheli (utkhovari)), ურთხმელი (urtkhmeli)	ურთხელა (urtkhela), ურთხველა (urtkhvela)	Fruit, Stem	Forest
<b>Taxodiaceae</b>					
<i>Cryptomeria japonica</i> (Thunb. ex L. f.) D. Don (GU)	Construction (Timber)	კრიპტომერია (k'rip't'omeria)	კლინტომერია (k'lint'omeria)	Stem	Garden
<b>Thymeleaceae</b>					
<i>Daphne mezereum</i> L.	Food (Human food); Medicinal (Insect repellent)	მაჯაღვერი (majaghveri), ჯანჯღამურა (janjghamura)		Stem	Forest

(Contd.)

Table 1 — Plants used in Guria and Racha(Contd.)

Family/Scientific name GU = only used in Guria RA = only used in Racha- Lechkhumi	Use category (Use description)	Georgian name (Transliteration)	Name other dialect (Transliteration other dialect) used Svan. = Svanetian Tush. = Tushetian Rach. = Rachian	Parts used	Location
<b>Tiliaceae</b>					
<i>Tilia caucasica</i> Rupr.	Animal food (Bees); Construction (Timber); Food (Human food, Pkhali, Tea); Fuel (Firewood); Medicinal (Cold, Diaphoretic, Fever); Utensils and tools (Household utensils, Tool handles, Wine presses)	ცაცხვი (phacha), ცაცხვი (tsatskhvi)		Flower, Leaf, Stem, Young leaf	Forest
<b>Tricholomataceae</b>					
<i>Lepista sordida</i> (Schumach.) Singer (RA)	Food (Human food)	ღრუბელა (Grhubela), მელნისძირა (Melnisdzira), მელანო (Melnisdzira)		Fruiting body	Forest
<i>Tricholoma portentosum</i> (Fr.) Quél. (RA)	Food (Human food)	ტაგუნა (taguna)		Fruiting body	Forest
<b>Ulmaceae</b>					
<i>Ulmus elliptica</i> C. Koch (RA)	Construction (Timber); Utensils and tools (Carts)	თელა (tela)		Stem	Forest
<i>Ulmus glabra</i> Huds. (GU)	Construction (Timber); Fuel (Firewood)	თელა (tela)		Stem	Forest
<i>Ulmus</i> sp. (RA)	Construction (Timber); Utensils and tools (Tool handles, Tools)	თელა (tela)		Stem	Forest
<i>Zelkova serrata</i> Makino (GU)	Construction (Timber); Utensils and tools (Tools)	ძელქვა (dzelkva)		Stem	Forest
<b>Urticaceae</b>					
<i>Urtica dioica</i> L.	Animal food (Fodder cows); Food (Human food, Pkhali); Fuel (Firewood); Medicinal (Diabetes)	ჭინჭარი (ch'inch'ari)	ჯიმჭარი (jimch'ari)	Leaf, Shoot	Forest, Garden
<b>Valerianaceae</b>					
<i>Valeriana officinalis</i> L.	Medicinal (Anti-inflammatory, Nerves, Skin, Sold)	კატაბალახა (k'at'abalakha)	კატაპარია (k'at'aparia)	Root	Forest
<b>Violaceae</b>					
<i>Viola</i> sp.	Food (Pkhali)	ია (ia)	იაია (iaia)	Leaf, Shoot, Whole plant	Forest
<b>Vitaceae</b>					
<i>Vitis vinifera</i> L.	Food (Human food, Pkhali, Wine); Fuel (Firewood); Medicinal (Anemia, Blood pressure (increase), Seizures (prevent))	ყურძენი (q'urdzeni); [varieties: ადესა (adesa), ალადასტური (aladast'uri), ვენახი (venakhi), კამური (k'amuri), კაჭიჭი (k'ach'ich'i), კაჭიჭი (kach'ich'i), მოლდავურა (moldavura), მტევანდიდი (mt'evandidi), ნოვე (nove), ოცხანური (otskhanuri), საფერავი (saperavi), ტრედისფეხა (t'redispekha), უშრომელა (ushromela), ფრანგულა (კაჭიჭი) (prangula (k'ach'ich'i)), შავიკამური (shavi k'amuri), ჩხავერი (chkhaveri), ცივანი (tsivani), ცოლიკაური (tsolik'auri), ცოლიკოური (tsolik'ouri), ცხენისძუძუ (tskhenis dzudzu), ჭეიშვილი (ch'eishvili), ჭუმუტა, ჯუმუტი (ch'umut'a), ჯანი (jani), adessa, aleqsandruli, isabella red, isabella white, ojaleshi, phrangula, pjaleshi, saperavi, thitha, ththa red, ththa white, tsitsqa, tsolikouri, usakhelouri]	ათიანხურძიანი (maethianiqurdzeni Svan.), ვერახურჯენი (viraqurdzeni Svan.)	Fruit, Leaf, Stem	Garden
<b>Woodsiaceae</b>					
<i>Mattheucia struthiopteris</i> (L.) Todd.	Animal food (Silkworms); Ornamental (Ornamental)	გვიმრა (gvimra), ტაფელა (t'apela)	ტაფელა (t'apela)	Whole plant	Forest

Table 2 — Mean informant consensus across use categories among participant communities, with total number of use reports and taxa

Region	Area	Community	Elevation	Community Code	# Use Categories	Total Use Reports	Total Taxa	ICF mean	ICF sd
Guria	GU1	Dvabzu	125	Dva	6	171	93	0.1586	0.2154
Guria	GU1	Metsieti	285	Met	6	240	66	0.7742	0.1163
Guria	GU1	Natanebi	120	Nat	3	76	36	0.7124	0.251
Guria	GU1	Pampaleti	255	Pam	10	786	199	0.7315	0.1623
Guria	GU1	Vakijvari	323	Vak	9	121	93	0.0967	0.1517
Guria	GU1	Vani	270	Van	9	372	113	0.5421	0.2636
Guria	GU2	Zemo Surebi	700	Zem	9	297	116	0.5392	0.0911
Guria	GU2	Zoti	835	Zot	9	340	121	0.6991	0.2385
Guria	GU3	Bakhmaro, Baisrua pastures	2400	Bak	9	890	67	0.9518	0.0409
Racha	RA1	Gebi	1350	Geb	5	177	75	0.569	0.0317
Racha	RA1	Kveda Tlugi	1129	Kvt	8	987	187	0.8076	0.2089
Racha	RA2	Gona	1680	Gon	5	80	66	0.127	0.1197
Racha	RA2	Mravaldzali	2000	Mra	6	67	37	0.338	0.262
Racha	RA3	Kveda Shavra	788	Kvs	6	88	83	0.0348	0.0591
Racha	RA3	Shardometi	776	Sha	6	114	98	0.0643	0.1038

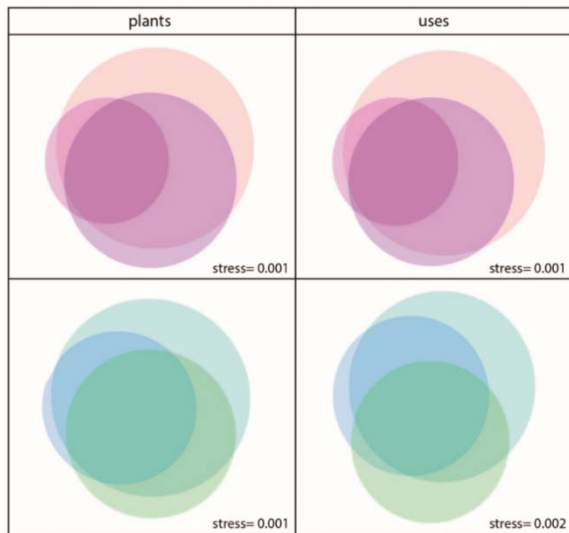


Fig. 2 — Proportional Euler diagrams of plants and use categories shared among three areas within Guria and Racha.

## Discussion

Both Guria and Racha showed clear differences in plant species knowledge and plant uses to the rest of Georgia (Fig. 7). Overall, the plant species number encountered in Racha and Guria was the highest so far reported from Georgia. Species numbers were much higher than in neighboring Svaneti-Lechkhumi<sup>7,8</sup>, Samtshe-Javakheti<sup>9,10</sup>, and even higher than in Tusheti-Khevsureti-Pshavi<sup>11,12</sup>, a region that already showed much higher species numbers and use reports than any other areas in the wider Mediterranean<sup>1,13</sup>. The

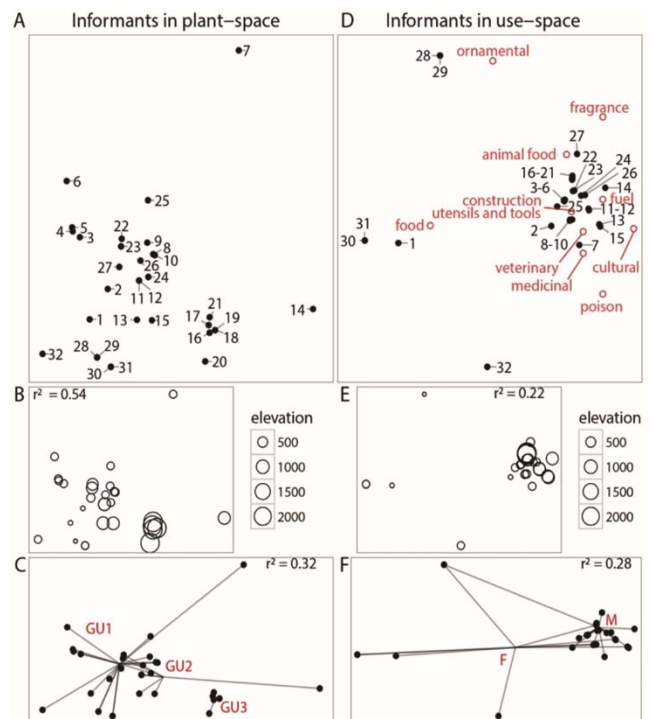


Fig. 3 — Guria participants ordered by their distance in plants reported (A-C) and in uses reported (D-F). Elevation of participant community (B,  $r^2 = 0.54$ ,  $p = 0.001$ ) and area within Guria of community (C,  $r^2 = 0.32$ ,  $p = 0.001$ ) significantly fit the ordination in plant-space. In use-space, elevation is less explanatory and marginally significant (E,  $r^2 = 0.22$ ,  $p = 0.04$ ), while gender is significant (F,  $r^2 = 0.28$ ,  $p = 0.003$ ).



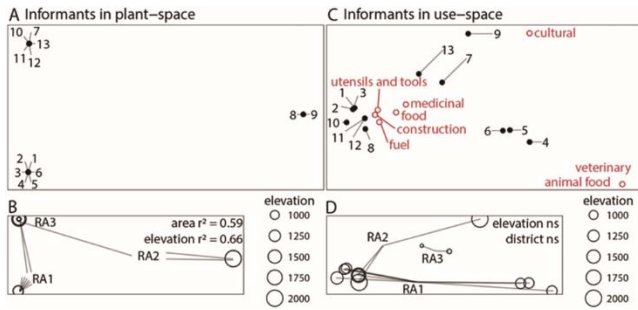


Fig. 4 — Racha participants ordered by their distance in plants reported (A-B) and in uses reported (C-D). Participants strongly cluster in plants reported, and despite some similar answer among respondents from different geographical areas (RA1, RA2, RA3), area and community elevation significantly fit the ordination in plant-space (B,  $r^2= 0.59$ ,  $p = 0.01$ ;  $r^2= 0.66$ ,  $p = 0.007$ ). Use categories reported are much more variable and are do not significantly fit demographic or environmental variables.

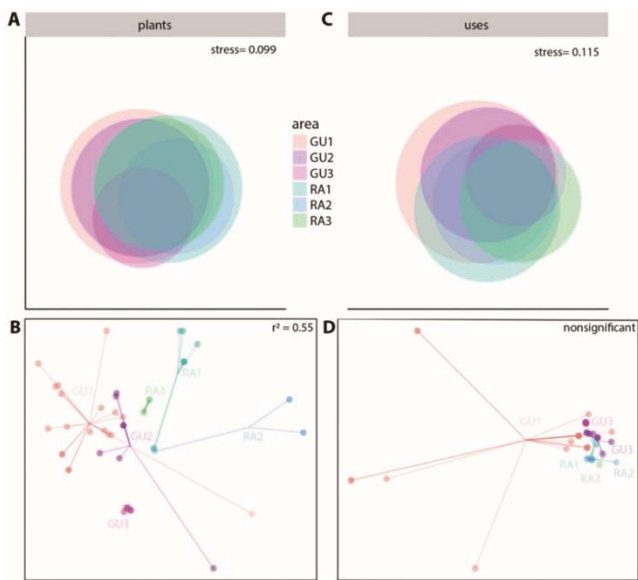


Fig. 5 — A great degree of overlap exists for list of plants (A, B) and uses (C,D) reported among areas within Guria (GU1-3) and Racha (RA1-3). Despite this, individual participant answers are structured by geographic area when this variable is fit onto the ordination in plant space (C,  $r^2= 0.55$ ,  $p = 0.001$ ). In use-space this fit is non significant (D,  $p=0.7$ ), with more overlap between communities and most variation in GU1.

prevalence of wild collected species for medicinal applications, and garden species for food, was very similar in other regions however<sup>7-13</sup>. When participants were ordered by their distance in plants reported (Fig. 8A, B) and in uses reported (Fig. 8C,D), elevation of participant community significantly fits the ordination in plant-space (Fig. 9A,  $r^2= 0.47$ ,  $p= 0.001$ ) and in use-space (Fig. 9C,  $r^2= 0.07$ ,  $p= 0.001$ ). Region significantly fits the ordination for both plant-space

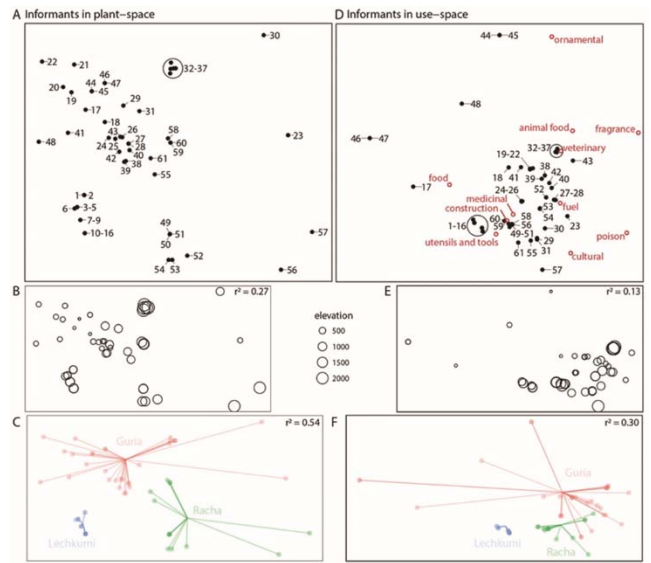


Fig. 6 — Guria, Racha, and Lechkumi participants are ordered by their distance in plants reported (A-C) and in uses reported (D-F). Elevation of participant community significantly fits the ordination in plant-space (B,  $r^2= 0.27$ ,  $p = 0.001$ ) and in use-space (E,  $r^2= 0.13$ ,  $p = 0.03$ ). Region significantly fits the ordination for both plant-space (C,  $r^2= 0.54$ ,  $p = 0.001$ ) and use-space (F,  $r^2= 0.30$ ,  $p = 0.001$ ).

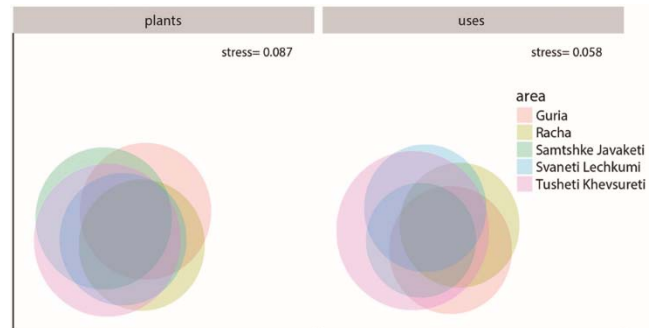


Fig. 7 — Proportional euler diagrams of plants and use categories shared among Georgian regions.

(Fig. 9B,  $r^2= 0.49$ ,  $p = 0.001$ ) and use-space (Fig. 9D,  $r^2= 0.35$ ,  $p= 0.001$ ). Across regions geographical variables (community, area and elevation) explained differences very well, while factors like gender and age were not significant (Fig. 10). Food and medicine were the most frequently cited use categories in all regions of Georgia, although both showed a slightly lower importance in Guria and Racha (Fig. 10).

Guria-Racha also showed a higher species number in comparison to a wide variety of studies published from other parts of Europe. The number of food species was exceptionally high in comparison to any area<sup>20-29</sup>, and the number of medicinal species also surpassed comparative studies<sup>20,21,23-33</sup>. Very similar to

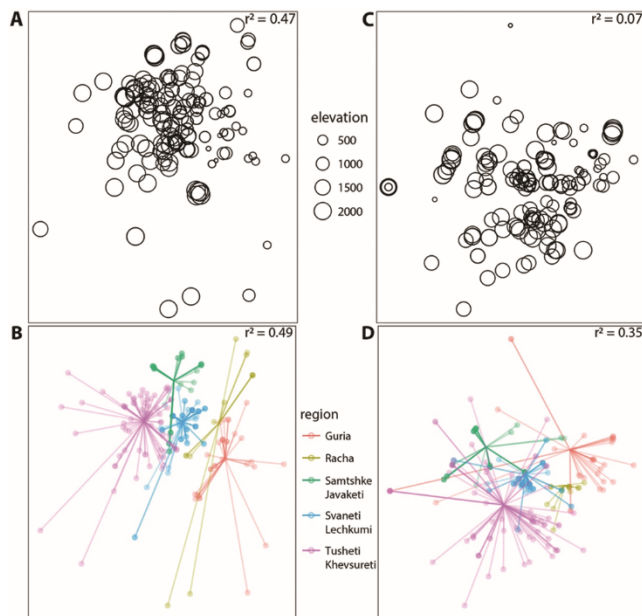


Fig. 8 — When participants from are ordered by their distance in plants reported (A,B) and in uses reported (C,D), elevation of participant community significantly fits the ordination in plant-space (A,  $r^2= 0.47$ ,  $p = 0.001$ ) and in use-space (C,  $r^2= 0.07$ ,  $p = 0.001$ ). Region significantly fits the ordination for both plant-space (B,  $r^2= 0.49$ ,  $p = 0.001$ ) and use-space (D,  $r^2= 0.35$ ,  $p = 0.001$ ). Centroids for each region are shown as areas where line segments join individual participants (points) from the region.

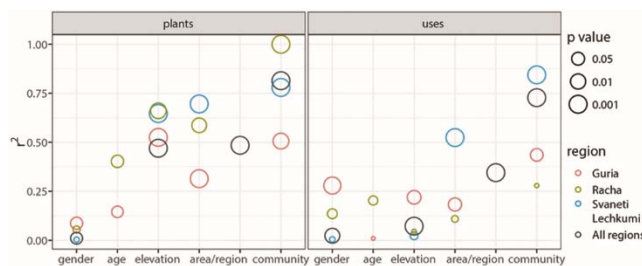


Fig. 9 — Environmental factors predicting plants and use categories reported. Across regions (Guria, Racha, Svaneti-Lechkumi, and all regions combined), environmental variables (gender and age of participants, and identity, elevation, area and region of participant community) were fit onto ordinations that positioned participants based on which plants and use categories they reported. Geographical variables tend to better fit plants than they do use categories.

Łuczaj *et al.*<sup>22</sup>, *Ranunculus* sp. and *Geranium* sp. were frequently consumed mixed with other herbs and walnuts as *Pkhali* (herb pie), indicating that the consumption of wild species considered somewhat toxic is very widespread in Georgia.

The use of leaves of toxic species (e.g. *Galanthus* sp., *Viola* sp., *Solanum tuberosum*) for *Pkhali* (herb

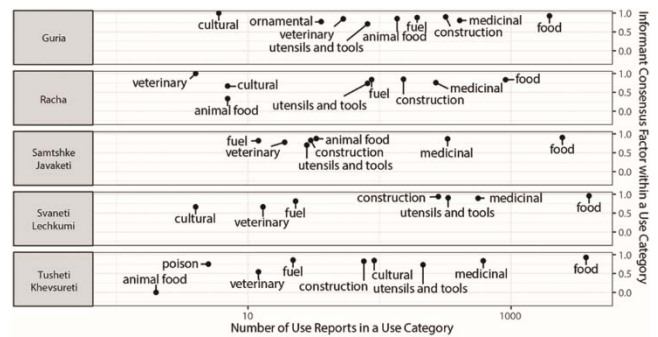


Fig. 10 — Informant consensus plotted over number of use reports for each Use Category among Georgian regions

pie) is very interesting, and very common all over the country. Like in previous reports<sup>7-14</sup>, leaves of such species were collected in spring, especially in remote areas in Racha, and boiled in water. The liquid was then discarded and the material eaten. Participants always pointed out that they knew about the toxicity of individual species, and for that reason were always preparing *Pkhali* using only “a little of every species”.

The great variety of fungal species used as food especially in Racha was astonishing, and highlights the region as a particularly mycophilous area. About half of the species were documented for the first time, and are still awaiting identification, as they were different from any species documented previously<sup>34</sup>.

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## Author contributions

RWB, NYPZ, SS, ZK, DK, DT and KB designed the study; RWB, NYPZ, SS, ZK, DT and KB conducted the fieldwork, RHE conducted the main statistical analysis; RBU, NYPZ and RHE analyzed the data and wrote the manuscript; all authors read, corrected and approved the manuscript.

## Competing financial interests

The authors declare that they have no competing financial interest.

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