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## A first checklist of the lichen-forming fungi of the Venezuelan Andes

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**ABSTRACT:** Basing on an evaluation of the literature and some unpublished collections, 745 taxa of lichen forming-fungi are reported from the Venezuelan Andes, including 10 infraspecific taxa. Of these taxa 37 are new records for Venezuela: *Actinoplaca vulgaris* (Müll. Arg.) Vezda & Poelt, *Asterothyrium decipiens* (Rehm) R. Sant., *Calopadia foliicola* (Fée) Vezda, *C. fusca* (Müll. Arg.) Vezda, *C. phyllogena* (Müll. Arg.) Vezda, *Chrysothrix chlorina* (Ach.) J. R. Laundon, *Cystocoleus ebeneus* (Dillwyn) Thwaites, *Diploschistes scruposus* (Schreb.) Norm., *Echinoplaca leucotrichoides* (Vain.) R. Sant., *Fellhanera bouteillei* (Desm.) Vezda, *F. dominicana* (Vain.) Vezda, *F. fuscatula* (Müll. Arg.) Vezda, *F. sublecanorina* (Nyl.) Vezda, *Gyalectidium filicinum* Müll. Arg., *Lecidea limosa* Ach., *Lepraria neglecta* Auct., *Ochrolechia africana* Vain., *Peltigera vainioi* Gyelnik, *Phyllobathelium nigrum* R. Sant. & Tibell, *Phyllophiale alba* R. Sant., *Polymeridium albidum* (Müll. Arg.) R. C. Harris, *Porina epiphylla* (Fée) Fée, *Racodium rupestre* Pers., *Ramalina asahinae* W. Culb. & C. Culb., *R. calcarata* Krog & Swinsc., *R. puiggarii* Müll. Arg., *R. rectangularis* Nyl., *Rhizoplaca melanophthalma* (DC.) Leuckert & Poelt, *Strigula antillarum* (Fée) Müll. Arg., *S. platypoda* (Müll. Arg.) R. C. Harris, *Tapellaria epiphylla* (Müll. Arg.) R. Sant., *T. nana* (Fée) R. Sant., *Tephromela aglaea* (Sommerf.) Hertel & Rambold, *Tricharia vainioi* R. Sant., *Trichothelium epiphyllum* Müll. Arg., *T. bipindense* F. Schill. and *Vezdaea foliicola* Sérusiaux. Another 4 species are new records only for the Venezuelan Andes: *Dimerella epiphylla* (Müll. Arg.) Malme, *Porina atrocoerulea* Müll. Arg., *Ramalina peruviana* Ach. and *Woessia apiahica* (Müll. Arg.) Sérus. A list of synonyms used in the consulted literature is added. Four new combinations are proposed: *Dictyonema zahlbruckneri* (Schiffn.) V. Marcano, *Heterodermia tropica* (Kurok.) Sipman, *Parmelinopsis cleefii* (Sipman) V. Marcano & Sipman and *Phyllobaeis linearis* (De Vries) V. Marcano & Sipman.

## INTRODUCTION

During the preparation of the Lichen Flora of Andean Venezuela (1990-1996) a necessity was felt to have a list of all species recorded from the Venezuelan Andes. Numerous references have been published to the lichen flora of the Venezuelan Andes, in many scattered publications, and in particular during the last few decades. Marcano (1994) listed some of these references, but an approximately complete survey was still lacking. Certainly such a catalog cannot be complete, because currently the distribution of the Andean Venezuelan lichens is not yet perfectly known. Nevertheless it is obviously useful to have a first comprehensive catalog available.

Five publications are of special importance. Dennis (1970) listed 63 lichen taxa from the Sierra Santo Domingo in the state of Mérida. Hertel (1971) published on 27 holarctic, crustaceous species from the Venezuelan Andes. Vareschi (1973) produced a first catalogue from the whole country, comprising 40 genera and 248 species. López-Figueiras (1978) listed 305 macrolichen species from the state of Mérida. Later he reported 520 species, mainly macrolichens, from the Andean States and Falcon (López-Figueiras 1986). Marcano (1994) listed 116 genera and estimated 638 species from the Venezuelan Andes. Other important contributions were made by Tibell (1982), Walker (1985), de Vries & Sipman (1984), Ahti & Stenroos (1986), Sipman (1986), Esslinger (1989), Moberg (1989), Aptroot (1991), Brako (1991), Sipman & Topham (1992), Marcano & Morales (1994a, b and c), Marcano et al. (1995, 1996) and Nash et al. (1995). The frequent new records in recent publications depend to a large extent on the activities of Prof. Manuel López Figueiras.

The present checklist includes not only literature references but also some unpublished identifications of herbarium collections. Most of these collections were obtained by the authors during 1990-1996, and by R. Lücking during 1995-1996. Also included are a number of misspellings and unpublished names, which were encountered during the preparation of the list, in particular in López Figueiras (1986).

At present 745 lichen taxa are known from the

Venezuelan Andes. They are listed below, with indications of habitat and altitudinal range in the investigated area, distribution, pertinent collection numbers (for newly recorded taxa), and incidental notes. The systematic arrangement largely follows Eriksson & Hawksworth (1993), with occasional changes according to the authors opinions. Taxa new to the Venezuelan Andes are marked by an asterisk, and those new to Venezuela by two asterisks. The most complete set of collections is kept in the herbarium of the Faculty of Pharmacy, University of the Andes (MERF) and in the herbarium of the Lichenological Research Center of the Foundation for the Development of Science and Technology (herb. lich. CEILT). Herbarium abbreviations follow the Index Herbariorum (Holmgren et al. 1991).

## SOME INFORMATION ON THE STUDY AREA

The Venezuelan Andes or *Cordillera de Mérida*, as understood here, comprise the states Lara (**LA**), Mérida (**ME**), Táchira (**TA**) and Trujillo (**TR**) (excepting the Sierra de Perijá). They cover 36.120 km<sup>2</sup>, and are the best known area in Venezuela from a lichenological point of view. Brief comments on the lichen flora in the four main vegetation types (desertic forest, pre-montane forest, montane forest and paramo) are following. Many lichens occur in more than one vegetation type. For details of the floristic composition of these vegetation types see Huber & Alarcón (1988) and Veillon (1989), and about their lichen flora see Marcano (1994).

### 1. Desertic forest

Desertic forest, dry deciduous forest, or semi-desert occur at a wide range of altitudes, between 200-1000 m, but are confined to intermountain valleys with an arid climate. The vegetation is xerophytic, deciduous and dominated by species like *Ritterocereus griseus*, *Opuntia wentiana*, *O. caribaea* and *Prosopis* sp. The observed lichen flora comprises 37 species, mainly from the families Collemataceae, Parmeliaceae, Physciaceae and Teloschistaceae.

### 2. Pre-montane forest

Pre-montane forest gradually replaces the desertic forest at an altitude of c. 700-900 m. It reaches

up to about 1200 m where it merges into montane forest. The annual rainfall seems to be very variable, 300-3000 mm. The vegetation is partly semi-deciduous, partly evergreen, and dominated by *Vochysia lehmannii*, *Inga spuria*, *Ficus* sp., *Clusia minor*, and other species of the families Lauraceae, Moraceae, Myrtaceae, Bignoniaceae, Euphorbiaceae and Araliaceae. It is not rich in lichens, and some 87 species are known, from the families Arthoniaceae, Collemaataceae, Lecanoraceae, Lobariaceae, Parmeliaceae, Peltigeraceae and Teloschistaceae.

### 3. Montane forest

Montane forest (including lower- and upper montane forest) occurs between c. 1500 and 3000 m. The annual rainfall seems to be 800-2200 mm. The characteristic vegetation is an evergreen, microphyllous forest, the trees loaded with mosses, filmy ferns, orchids and bromeliads. The vegetation is dominated by species like *Decussocarpus rospigliosii*, *Prumnopytis montana*, *Podocarpus oleifolius*, *Oreopanax moritzii*, *Weinmannia jahnii*, *W. microphylla*, *Tetrorchidium rubrivenium*, *Ruagea glabra* and *Cyathea* spp. It is exceptionally rich in lichens. However, most of the vegetation is now replaced by cultivated fields, which may still show a luxuriant lichen growth. So far 523 species are known, especially species of *Dibaeis*, *Cladonia*, *Hypotrachyna*, *Leptogium*, *Oropogon*, *Peltigera*, *Ramalina*, *Stereocaulon*, *Sticta*, *Usnea* and many microlichens.

### 4. Paramo

Paramo grassland dominates between 3000 and 5000 m. In the transition zone with the montane forest rather large stands of small *Polylepis sericea* trees may occur with an abundant corticolous lichen flora containing species of *Everniastrum*, *Hypotrachyna*, *Oropogon*, *Pseudocyphellaria* and *Sticta*. The terricolous lichen flora includes species of *Cladonia*, *Diploschistes*, *Leprocaulon*, *Peltigera*, *Siphula*, *Stereocaulon*, *Thamnia* and *Xanthoparmelia*, whereas on rock species of *Melanelia*, *Neofuscelia*, *Umbilicaria*, *Usnea*, *Xanthoparmelia* and *Xanthoria* are found. Currently most paramos are bordered by cultivated or deforested land. The lichen flora is very rich and contains 418 species.

## THE LICHEN-FORMING FUNGI FROM THE VENEZUELAN ANDES

**\*\**Actinoplaca vulgaris*** (Müll. Arg.) Vezda & Poelt

Foliicolous, montane forest, 1700 m, R. Lücking 95-119, 95-120, 95-140 (herb. lich. CEILT, herb. Lücking), **ME**.

*Alectoria imshaugii* Brodo & D. Hawksw. var. *venezuelensis* V. Marcano & A. Morales

Corticolous, on small shrubs and pines, subparamo, paramo, 3500-3800 m, **ME** (Hawksworth 1977; Marcano & Morales 1994c).

*Alectoria ochroleuca* (Hoffm.) Massal. var. *tropica* V. Marcano & A. Morales

Terricolous, on wet soils, desertic paramos, 3100-4500 m, **ME**, **TR** (Vareschi 1973, as *Alectoria ecuadorensis*; López Figueiras 1986; Marcano 1994; Marcano & Morales 1994c).

*Anthracothecium paraguayense* Malme

Corticolous, montane forest, 1600 m, **ME** (López Figueiras 1986).

*Anzia americana* Yoshim. & Sharp

Corticolous, montane forest and paramo, 2200-3000 m, **ME** (López Figueiras 1986).

*Anzia dictyorrhiza* (Masse) Yoshim.

Corticolous, paramo, 3500-3600 m, **ME** (López Figueiras 1986).

*Anzia leucobates* (Nyl.) Müll. Arg.

Corticolous, paramo, 2800-3600 m, **ME** (López Figueiras 1986).

*Anzia masonii* Yoshim.

Corticolous, paramo and montane forest, 2350-3200 m, **ME** (López Figueiras 1986).

*Anzia parasitica* (Fée) A. Zahlbr.

Corticolous, paramo and montane forest, 2400-3500 m, **ME**, **TA** (López Figueiras 1986; Marcano 1994).

*Arthonia cinnabarina* (DC.) Wallr.

Corticolous, montane forest and paramo, 800-3200 m, **ME, LA, TR** (López Figueiras 1986, as *Arthonia tumidula*; Marcano 1994).

*Arthonia intexta* Almq.

Saxicolous, paramo, 4250 m, **ME** (Hertel 1971; Vareschi 1973).

*Arthonia rubella* (Fée) Nyl.

Corticolous, desertic forest, 500-600 m, **LA** (López Figueiras 1986).

*Arthopyrenia cinchonae* (Ach.) Mull. Arg.

Corticolous, montane forest and paramo, 2450-2700 m, **ME, TA** (López Figueiras 1986).

*Arthrorhapis citrinella* (Ach.) Poelt

Terricolous, paramo, 2850-4500 m, Marcano 7212 (herb. lich. CEILT, B) **ME** (Hertel 1971, Vareschi 1973).

*Arthrorhapis alpina* (Schaer.) R. Sant. in D. Hawksw., P. James & Coppins

Terricolous, paramo, 3500 m, **ME** (López Figueiras 1986, misspelt as *A. litina*).

\*\**Asterothyrium decipiens* (Rehm) R. Sant.

Follicolous, montane forest, 1700 m, R. Lücking 95-124 (herb. lich. CEILT, herb. Lücking), **ME**.

*Astrothelium eustomum* (Mont.) Müll. Arg.

Corticolous, montane forest, 2000-2300 m, **ME** (López Figueiras 1986; Marcano 1994).

*Auriculora byssomorpha* (Nyl.) Kalb

Corticolous, montane forest, 1400-1600 m, **TR** (López Figueiras & Morales 1989b, as *Lecidea byssomorpha*).

*Bacidia millegrana* (Tayl.) A. Zahlbr.

Corticolous, montane forest, 1100 m, **LA** (López Figueiras 1986; Marcano 1994).

*Baeomyces rufus* (Huds.) Rebent.

Terricolous, saxicolous, paramo, 3500-4150 m, **ME** (de Vries & Sipman 1984).

*Brigantiaea leucoxantha* (Spreng.) R. Sant. et Hafelln.

Corticolous, montane forest, 1200-2600 m, **ME, TA**

(López Figueiras & Morales 1989b).

*Buellia millegrana* (Tayl.) A. Zahlbr.

Corticolous, freestanding tree in pasture, montane forest zone, 2750 m, **ME** (Kalb 1990).

*Bulbothrix apophysata* (Hale & Kurok.) Hale

Corticolous, montane forest, 1400-2400 m, **ME, TA** (Hale 1976a).

*Bulbothrix fungicola* (Lyngé) Hale

Corticolous, montane forest, 1300-1400 m, **ME, TA** (Hale 1976a).

*Bulbothrix goebelii* (Zenker) Hale

Corticolous, pre-montane forest and montane forest, 900-2400 m, **ME, TA, LA** (Hale 1976a).

*Bulbothrix hypocraea* (Vain.) Hale

Corticolous, montane forest, 1400-1500 m, **LA** (Hale 1976a).

*Bulbothrix imshaugii* (Hale) Hale

Saxicolous, corticolous, paramo, 2600-3200 m, **ME** (Hale 1976a).

*Bulbothrix isidiza* (Nyl.) Hale

Corticolous, montane forest, 700-1500 m, **LA, TR** (Hale 1976a).

*Bulbothrix lopezii* Hale

Corticolous, montane forest, 1400 m, **ME** (López Figueiras 1986a).

*Bulbothrix sensibilis* (Stein. & A. Zahlbr.) Hale

Corticolous, pre-montane forest, 800-1100 m, **TA** (Hale 1976a).

*Bulbothrix suffixa* (Stirt.) Hale

Corticolous, montane forest, 1400-2300 m, **ME** (Hale 1976a).

*Bulbothrix tabacina* (Mont. & Bosch) Hale

Corticolous, montane forest, 700-1500 m, **LA, TA, TR** (Hale 1976a).

*Bulbothrix ventricosa* (Hale & Kurok.) Hale

Saxicolous, montane forest, paramo, 900-3000 m, **LA, ME** (Hale 1976a).

- Bunodophoron melanocarpum* (Sw.) Wedin  
Corticolous, sometimes terricolous, montane forest and paramo, 2000-4750 m, **ME, TA, TR** (Dodge & Vareschi 1956, as *Sphaerophorus*; López Figueiras 1986, as *Sphaerophorus*; Marcano 1994, as *Sphaerophorus*).
- Byssocaulon tenue* (Hue) Vain.  
Saxicolous, paramo, 4350 m, **ME** (Vareschi 1973).
- Calicium chlorosporum* F. Wilson in Bailey  
Corticolous, montane forest, 2200-2250 m, **ME** (López Figueiras 1986, as *C. auratum* Tibell; Marcano 1994).
- Calicium hyperelloides* Nyl.  
Corticolous, montane forest and paramo, 2300-3000 m, **ME, TA** (López Figueiras 1986; Marcano 1994).
- Calicium salicinum* Pers.  
Lignicolous, on wood of fencepost between meadow and road, montane forest, 1200-1400 m, **ME** (López Figueiras 1986; Tibell 1996).
- \*\**Calopadia foliicola* (Fée) Vezda  
Foliicolous, montane forest, 1700 m, R. Lücking 95-110, 95-136a, 95-140 (herb. lich. CEILT, herb. Lücking), **ME**.
- \*\**Calopadia fusca* (Müll. Arg.) Vezda  
Foliicolous, montane forest, 1700 m, R. Lücking 95-106 (herb. lich. CEILT, herb. Lücking), **ME**.
- \*\**Calopadia phyllogena* (Müll. Arg.) Vezda  
Foliicolous, on *Coffea* leaves in shady coffee plantation (former mossy forest area), montane forest, 1200-1700 m, R. Lücking 95-109, 95-136b (herb. lich. CEILT, herb. Lücking); H. Sipman & A. Morales 38077 (B, herb. lich. CEILT), **ME**.
- Caloplaca brebissonii* (Fée) J. Sant. ex Hafelln. et Poelt  
Corticolous, montane forest and paramo-shrub, 2900 m, **ME** (López Figueiras & Morales 1989b; Kalb 1990).
- Caloplaca calicioides* P. M. Jörg.  
Corticolous, paramo, 3500 m, **ME** (Jørgensen 1986).
- Caloplaca erythroleuca* (Nyl.) A. Zahlbr.  
Corticolous, montane forest, 1700 m, **ME** (Hafellner & Poelt 1979).
- Caloplaca hensseniana* Kalb  
Corticolous, dry steppe-vegetation (15 km E of Barquisimeto), 550 m, **LA** (Kalb 1990).
- Caloplaca herbidella* (Hue) Magnusson  
Corticolous, montane forest, 800-2400 m, **LA** (Kärnefelt 1990).
- Caloplaca saxicola* (Hoffm.) Nordin.  
Saxicolous, desertic forest, xeric, 500-600 m, **LA** (López Figueiras 1986; Marcano 1994).
- Candelaria concolor* (Discks.) B. Stein  
Saxicolous, corticolous, pre-montane forest, montane forest and paramo, 200-2600 m, **ME, LA, TA, TR** (López Figueiras 1986; Marcano 1994).
- Candelaria fruticans* Poelt & Oberw.  
Saxicolous, corticolous, montane forest and paramo, 1100-2500 m, **ME, TA, LA** (López Figueiras 1986).
- Candelariella vitellina* (Hoffm.) Müll. Arg.  
Saxicolous, paramo, 3900 m, **ME** (Hertel 1971; Vareschi 1973).
- Candelina mexicana* (B. de Lesd.) Poelt  
Saxicolous, pre-montane forest, montane forest and paramo, 900-3000 m, **ME, LA, TR** (López Figueiras 1986; Marcano 1994).
- Candelina submexicana* (B. de Lesd.) Poelt  
Saxicolous, montane forest and paramo, 1700-3100 m, **LA, TR** (López Figueiras 1986).
- Canomaculina muelleri* (Vain.) Elix & Hale  
Corticolous, montane forest, 1300-1900 m, **LA, ME, TA, TR** (Hale 1976c, as *Parmelina*; López Figueiras 1986, as *Parmelina*).
- Canomaculina pilosa* (Stizenb.) Elix & Hale  
Corticolous, pre-montane forest and montane forest, 1000-1500 m, **LA, ME** (Vareschi 1973, as *Parmelia*; López Figueiras 1986, as *Parmelina*).
- Canoparmelia caribaea* (Hale) Elix & Hale  
Saxicolous, montane forest, 2000 m, **ME** (Hale

1976b, as *Pseudoparmelia*).

*Canoparmelia carneopruinata* (A. Zahlbr.) Elix & Hale

Saxicolous, corticolous, pre-montane forest, montane forest and paramo, 800-3200 m, **LA, ME** (Hale 1976b, as *Pseudoparmelia*).

*Canoparmelia caroliniana* (Nyl.) Elix & Hale

Corticolous, saxicolous, pre-montane forest and montane forest, 1000-2900 m, **LA, ME, TA, TR** (Vareschi 1973, as *Parmelia*; Hale 1976b, as *Pseudoparmelia*).

*Canoparmelia cinerascens* (Lyngé) Elix & Hale

Corticolous, pre-montane forest and montane forest, 200-300 m, **LA** (Hale 1976b, as *Pseudoparmelia*).

*Canoparmelia crozalsiana* (B. de Lesd.) Elix & Hale

Corticolous, saxicolous, desertic forest and montane forest, 700-2300 m, **LA, ME, TR** (Vareschi 1973, as *Parmelia*; Hale 1976b, as *Pseudoparmelia*).

*Canoparmelia scrobicularis* (Kremp.) Elix & Hale

Corticolous, montane forest, 2000-2400 m, **ME** (Hale 1976b, as *Pseudoparmelia*; López Figueiras 1986, as *Pseudoparmelia*).

*Canoparmelia texana* (Tuck.) Elix & Hale

Saxicolous, also corticolous, desertic forest, pre-montane forest, montane forest and paramo, 600-3500, **LA, ME, TA, TR** (Hale 1976b, as *Pseudoparmelia*; López Figueiras 1986, as *Pseudoparmelia*).

*Carbonea vorticosa* (Flk.) Hertel

Saxicolous, paramo, 3900 m, **ME** (Hertel 1971, as *Lecidea*; Vareschi 1973, as *Lecidea*).

*Cetrariastrum andense* Kärnf. in W. Culb. & C. Culb.

Corticolous, paramo, 3500-4000 m, **ME** (Culberson & Culberson 1981).

*Chaenotheca chrysocephala* (Turner ex Ach.) Th. Fr.

Corticolous, paramo, 4000 m, **ME** (López Figueiras 1986, as *Chaenotheca* sp.; Tibell 1996).

*Chiodecton antillarum* Vain.

Corticolous, montane forest, 1200-1250 m, **LA** (López Figueiras 1986).

*Chiodecton hypochnoides* Nyl.

Corticolous, montane forest, 2300-2600 m, **ME, TA, TR** (López Figueiras 1986; Marcano 1994).

*Chiodecton sphaerale* Ach.

Corticolous, montane forest, 2000-2700 m, **ME, TA, TR** (López Figueiras 1986).

\*\**Chrysothrix chlorina* (Ach.) J. R. Laundon

Humicolous, paramo, 3500-4000 m, Marcano 95-56 (herb. lich. CEILT), **ME**.

*Cladia aggregata* (Sw.) Nyl.

Terricolous, saxicolous, montane forest and paramo, 1300-4000 m, **LA, ME, TA, TR** (Vareschi 1973, as *Cladonia*; López Figueiras 1986).

*Cladina arcuata* (Ahti) Ahti & Follm.

Terricolous, corticolous, saxicolous, humicolous, montane forest and paramo, 1800-3600 m, **ME, TA, TR** (Vareschi 1973, as *Cladonia*; López Figueiras 1986).

*Cladina boliviana* (Ahti) Ahti

Terricolous, sometimes humicolous and muscicolous, montane forest and paramo, 1150-3750 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Cladina confusa* (R. Sant.) Follm. ex Ahti fo. *confusa*

Terricolous, corticolous, sometimes saxicolous and humicolous, montane forest and paramo, 1450-4045 m, **LA, ME, TA, TR** (Vareschi 1973, as *Cladonia*; López Figueiras 1986; Marcano 1994).

*Cladina confusa* (R. Sant.) Follm. & Ahti fo. *bicolor* (Müll. Arg.) Ahti

Terricolous, montane forest and paramo, 2000-3400 m, **ME, TA, TR** (López Figueiras 1986).

*Cladina halei* Ahti

Terricolous, montane forest and paramo, 2000-3600 m, **ME, TA, TR** (Ahti 1986a).

*Cladina rangiferina* (L.) Nyl. ssp. *abbayesii* (Ahti)

W. Culb.

Saxicolous, terricolous, corticolous, montane forest and paramo, 1800-3600 m, **ME, TA, TR** (López Figueiras 1986).

*Cladonia andesita* Vain.

Terricolous, corticolous, montane forest and paramo, 2000-3750 m, **ME, TA, TR** (López Figueiras 1986).

*Cladonia bacillaris* Nyl.

Saxicolous, corticolous, humicolous, montane forest and paramo, 1400-3600 m, **LA, ME, TA, TR** (Ahti & Stenroos 1986).

*Cladonia calycantha* Del. ex Nyl. em. Ahti

Terricolous, montane forest and paramo, 2442-3452 m, **ME** (Vareschi 1973; López Figueiras 1986).

*Cladonia carassensis* Vain.

Terricolous, montane forest and paramo, 1800-3452 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Cladonia cartilaginea* Müll. Arg.

Terricolous, corticolous, montane forest and paramo, 1400-3450 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Cladonia ceratophylla* (Sw.) Spreng.

Terricolous, corticolous, muscicolous, montane forest and paramo, 790-4500 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Cladonia chlorophaea* (Flk. ex Sommerf.) Spreng.

Terricolous, saxicolous, montane forest and paramo, 1800-3500 m, **ME, TA, TR** (López Figueiras 1986).

*Cladonia coccifera* (L.) Willd.

Terricolous, muscicolous, montane forest and paramo, 2200-4000 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986; Ahti & Stenroos 1986).

*Cladonia coccifera* (L.) Willd. fo. *ochrocarpia* (Flk. ex Sommerf.) Rebut.

Terricolous, paramo, 3750 m, **ME** (Ahti & Stenroos 1986; López Figueiras 1986).

*Cladonia corallifera* (Kunze) Nyl.

Terricolous, montane forest and paramo, 1900-

3500 m, **ME, TA, TR** (Ahti & Stenroos 1986; López Figueiras 1986).

*Cladonia corniculata* Ahti & Kashiw.

Terricolous, saxicolous, corticolous, montane forest and paramo, 2000-4100 m, **ME, TA, TR** (López Figueiras 1986; Huovinen et al. 1990).

*Cladonia corymbites* Nyl.

Terricolous, paramo, 3500 m, **ME** (López Figueiras 1986).

*Cladonia crispata* (Ach.) Flot.

Terricolous, corticolous, saxicolous, montane forest and paramo, 1700-3452 m, **LA, ME, TR** (López Figueiras 1986).

*Cladonia crispatula* (Nyl.) Ahti

Terricolous, montane forest, 1900 m, **TA** (López Figueiras 1986).

*Cladonia cryptochlorophaea* Asah.

Terricolous, saxicolous, humicolous, montane forest and paramo, 1400-3400 m, **LA, TA, TR** (López Figueiras 1986).

*Cladonia dactylota* Tuck.

Terricolous, muscicolous, montane forest and paramo, 1400-3400 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986; Huovinen et al. 1990).

*Cladonia didyma* (Fée) Vain. var. *didyma*

Corticolous, humicolous, montane forest, 1800-2400 m, **ME** (Ahti & Stenroos 1986).

*Cladonia didyma* (Fée) Vain. var. *vulcanica* (Zoll. & Moritzi) Vain.

Corticolous, terricolous, saxicolous, humicolous, muscicolous, montane forest and paramo, 1225-4045 m, **LA, ME, TA, TR** (Vareschi 1973, as *C. vulcanica*; López Figueiras 1986, as *C. vulcanica*; Ahti & Stenroos 1986).

*Cladonia dilleniana* Flk.

Corticolous, montane forest-paramo transition zone, 3000 m, **ME** (López Figueiras 1986).

*Cladonia fimbriata* (L.) Fr.

Terricolous, montane forest-paramo transition zone, 2700 m, **TA** (Vareschi 1973; López Figueiras

1986).

*Cladonia furcata* (Huds.) Schad.Terricolous, humicolous, montane forest and paramo, 1700-3630 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).*Cladonia granulosa* (Vain.) AhtiTerricolous, sometimes saxicolous, montane forest and paramo, 1400-4000 m, **LA, ME, TA, TR** (Huovinen & Ahti 1988; Ahti 1986b).*Cladonia grayi* Merr. ex Sandst.Terricolous, montane forest and paramo, 2300-3000 m, **ME** (López Figueiras 1986).*Cladonia isabellina* Vain.Terricolous, saxicolous, muscicolous, montane forest and paramo, 2400-4200 m, **ME** (Vareschi 1973; López Figueiras 1986; Huovinen et al. 1990).*Cladonia leprocephala* Ahti & Stenr.Terricolous, corticolous, saxicolous, montane forest and paramo, 2900-4250 m, **ME, TA, TR** (Ahti & Stenroos 1986).*Cladonia lopezii* Stenr.Terricolous, saxicolous, or on rotten wood, paramo, 2300-3935 m, **ME, TR, TA** (Stenroos 1989).*Cladonia macilenta* Ehrh. ex Hoffm.Corticolous, terricolous, montane forest, 1400-2750 m, **LA, ME, TR** (Ahti & Stenroos 1986).*Cladonia meridensis* Ahti & Stenr.Terricolous, saxicolous, sometimes corticolous, montane forest and paramo, 1300-4000 m, **ME, TA, TR** (Vareschi 1973, as *C. hypoxanthoides*; López Figueiras 1986, as *C. hypoxanthoides*; Ahti & Stenroos 1986).*Cladonia merochlorophaea* Asah.Corticolous, terricolous, saxicolous, montane forest and paramo, 2000-3400 m, **ME, TA, TR** (López Figueiras 1986).*Cladonia mexicana* Vain.Terricolous, corticolous, saxicolous, montane forest and paramo, 2000-3600 m, **ME, TA, TR** (López Figueiras 1986; Huovinen, Ahti & Sten-

roos 1990).

*Cladonia microscypha* Ahti & Stenr.Humicolous, terricolous, saxicolous, sometimes corticolous, montane forest and paramo, 2300-3600 m, **ME, TA, TR** (Ahti & Stenroos 1986).*Cladonia miniata* Meyer var. *miniata*Humicolous, saxicolous, montane forest and paramo, 1800-3750 m, **ME, TA, TR** (Vareschi 1973; Ahti & Stenroos 1986; Stenroos 1989).*Cladonia mutabilis* Vain.Saxicolous, terricolous, montane forest, 1750-2400 m, **ME** (López Figueiras 1986).*Cladonia nana* Vain.Muscicolous, montane forest, 1600-2000 m, **ME** (López Figueiras 1986).*Cladonia ochrochlora* Flk.Corticolous, terricolous, montane forest and paramo, 1800-3500 m, **LA, ME, TA, TR** (López Figueiras 1986).*Cladonia pityrophylla* Nyl.Terricolous, montane forest, 1500-1600 m, **LA** (López Figueiras 1986, misspelt as *C. pitriophylla*).*Cladonia pleurota* (Flk.) Schaer.Terricolous, paramo, 3000-4000 m, **ME, TA, TR** (López Figueiras 1986).*Cladonia pocillum* (Ach.) O. Rich.Corticolous, terricolous, saxicolous, montane forest, 2300-3400 m, **ME, TR** (López Figueiras 1986).*Cladonia pyxidata* (L.) Hoffm.Terricolous, montane forest and paramo, 1600-3400 m, **ME, TR** (López Figueiras 1986).*Cladonia ramulosa* (With.) J. R. LaundonTerricolous, corticolous, montane forest, 1800-2750 m, **LA, ME, TA, TR** (López Figueiras 1986, as *Cladonia anomaea*).*Cladonia rappii* Evans var. *exilior* (des Abb.)



**Ahti**

Terricolous, corticolous, montane forest and paramo, 1300-4000 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Cladonia rugulosa* Ahti

Terricolous, saxicolous, montane forest, 1750-2400 m, **ME** (Ahti 1986b).

*Cladonia scholanderi* des Abb.

Terricolous, corticolous, saxicolous, montane forest and paramo, 1800-3000 m, **ME, TA** (López Figueiras 1986; Huovinen & Ahti 1988).

*Cladonia squamosa* (Scop.) Hoffm. var. *subsquamosa* (Nyl. ex Leight.) Vain.

Corticolous, terricolous, saxicolous, montane forest and paramo, 1400-3750 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Cladonia steyermarkii* Ahti

Saxicolous, terricolous, montane forest and paramo, 2400-3100 m, **ME, TA** (Ahti 1986).

*Cladonia subradiata* (Vain.) Sandst.

Terricolous, corticolous, montane forest and paramo, 1400-3400 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Cladonia subsquamosa* Kremp.

Terricolous, corticolous, montane forest and paramo, 1000-4500 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Cladonia verruculosa* (Vain.) Ahti

Humicolous, terricolous, muscicolous, corticolous, montane forest and paramo, 2000-4500 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Cladopycnidium sinense* Magnusson

Saxicolous, paramo, 3900-4150 m, **ME** (Vareschi 1973, as *Lecidea tessellata*).

*Coccocarpia culatensis* V. Marcano & A. Morales

Lichenicolous, corticolous, montane forest-paramo transition zone, 2900-3000 m, **ME** (Marcano et al. 1995).

*Coccocarpia domingensis* Vain.

Corticolous, montane forest, 2500-2650 m, **ME** (Arvidsson 1982; Marcano et al. 1995).

*Coccocarpia erythrocardia* (Müll. Arg.) L. Arvidss.

Corticolous, pre-montane forest and montane forest, 150-2400 m, **ME, BA** (Arvidsson 1982; Marcano et al. 1995).

*Coccocarpia erythroxyli* (Spreng.) Swinsc. & Krog

Corticolous, muscicolous, montane forest and paramo, 800-3100 m, **LA, ME, TA, TR** (Vareschi 1973, as *Coccocarpia parmelioides*; Marcano et al. 1995).

*Coccocarpia palmicola* (Spreng.) L. Arvidss. & D. Gall.

Corticolous, montane forest and paramo, 1800-3000 m, **ME, TA, BA** (López Figueiras 1986; Marcano 1994; Marcano et al. 1995).

*Coccocarpia pellita* (Ach.) Müll. Arg. emend. R. Sant.

Corticolous, montane forest, 1600-2500 m, **ME, TA, BA** (Marcano et al. 1995).

*Coenogonium linkii* Ehrenb.

Corticolous, montane forest, 1100-2600 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986; Marcano 1994).

*Collema glaucophthalmum* Nyl. var. *glaucophthalmum*

Corticolous, montane forest and paramo, 2600-4000 m, **ME, TA, TR** (López Figueiras 1986; Marcano 1994).

*Collema pulcellum* Ach. var. *subnigrescens* (Müll. Arg.) Degel.

Corticolous, pre-montane forest, 200 m, **LA** (López Figueiras 1986).

*Coniocybe sanguinea* Tibell

Corticolous, humicolous, high montane forest, 2300 m, **ME** (Tibell 1982).

*Crocynia gossipina* (Sw.) Massal.

Corticolous, saxicolous, montane forest, 1800-2400 m, **ME** (Vareschi 1973; López Figueiras 1986).

*Cryptothecia rubrocincta* (Ehrenb.) Thor  
Corticolous, montane forest, 1000-2600 m, **ME, TA, TR** (López Figueiras 1986, as *Chiodecton sanguineum*).

\*\**Cystocoleus ebeneus* (Dillwyn) Thwaites  
Saxicolous, paramo, 3000-4500 m, Marcano 95-71 (herb. lich. CEILT), **ME**.

*Dermatocarpon miniatum* (L.) Mann  
Saxicolous, montane forest, 1800 m, **ME** (López Figueiras 1986).

*Dibaeis absoluta* (Tuck.) Kalb & Gierl  
Terricolous, humicolous, often on dead mosses, paramo, 1300-3600 m, **LA, ME, TA, TR** (de Vries & Sipman 1984, as *Baeomyces*; Gierl & Kalb 1993).

*Dibaeis columbina* (Vain.) Kalb & Gierl  
Terricolous, roadside bank, 2300-2800 m, **ME, TA** (Gierl & Kalb 1993).

*Dibaeis fungoides* (Sw.) Kalb & Gierl  
Terricolous, humicolous, among mosses and on dead vegetation, montane forest and paramo, 1000-3400 m, **LA, ME, TA, TR** (de Vries & Sipman 1984, as *Baeomyces*; Kalb 1991, as *Baeomyces*; Gierl & Kalb 1993; Marcano 1994, as *Baeomyces*).

*Dibaeis globulifera* Kalb & Gierl  
Terricolous, paramo, Boconó (Paramo de Guaramacal), **TR** (Gierl & Kalb 1993).

*Dictyonema glabratum* (Spreng.) D. Hawksw.  
Corticolous, saxicolous, terricolous, montane forest and paramo, 1000-4200 m, **LA, ME, TA, TR** (Vareschi 1973, as *Corapavonia*; López Figueiras 1986, as *Cora montana*; Marcano 1994, as *Cora montana*).

*Dictyonema sericeum* (Sw.) Berk.  
Saxicolous, corticolous, montane forest and paramo, 1300-3300 m, **LA, ME, TA** (Vareschi 1973; López Figueiras 1986; Marcano 1994).

*Dictyonema zahlbruckneri* (Schiffn.) V. Marcano COMB. NOV.  
Basionym: *Corella zahlbruckneri* Schiffner in Zahlbruckner, Denkschr. K. Akad. Wiss. Wien, Math.-nat. Kl. 83: 200 (1927).

Saxicolous, corticolous, montane forest, 1300-2500 m, **LA, ME, TA, TR** (López Figueiras 1986, as *Corella*). Parmasto (1978) listed *Corella zahlbruckneri* as a synonymy of *D. glabratum*, but *D. zahlbruckneri* is a valid species well separated from *D. glabratum* and widely distributed in the Neotropical region. It is characterized by its small and dense lobes, of a greenish color when wet, whereas *D. glabratum* has wider lobes, of a whitish to bluish color when wet.

*Dimerella chiodectonoides* Kalb  
Corticolous, montane forest, 2750 m, **ME, TA** (Kalb 1991).

\**Dimerella epiphylla* (Müll. Arg.) Malme  
Foliicolous, montane forest, 1700 m, R. Lücking 95-113 (herb. gr. lich. CEIL), **ME**.

*Diploschistes cinereocaesius* (Sw. ex Ach.) Vain.  
Terricolous, saxicolous, montane forest and paramo, 2200-4450 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986; Marcano 1994).

*Diploschistes gypsaceus* (Ach.) A. Zahlbr.  
Saxicolous, paramo, 3450-3500 m, **ME** (López Figueiras 1986; Lumbsch 1989).

*Diploschistes hypoleucus* A. Zahlbr.  
Terricolous, paramo, 3000-4500 m, **ME** (Lumbsch 1989).

\*\**Diploschistes* vs. *scruposus* (Schreb.) Norm.  
Saxicolous, paramo, 4000-4700 m, Marcano 7130 (B, herb. lich. CEILT), **ME**.

*Dirinaria applanata* (Fée) Awas.  
Corticolous, saxicolous, desertic forest, montane forest, pre-montane forest and paramo, 200-3452 m, **LA, ME, TR** (López Figueiras 1986; López Figueiras & Morales 1989a).

*Dirinaria confluens* (Fée) Awas. var. *confluens*  
Corticolous, saxicolous, desertic forest, pre-montane forest, 850-1900 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Dirinaria confluens* (Fée) Awas. var. *coccinea* (Lyngé) Awas.  
Corticolous, montane forest, 900-2600 m, **TA** (López Figueiras 1986).

- Dirinaria confusa* Awas. var. *saxicola* (Räs.) Awas.  
Saxicolous, montane forest, 1300-1450 m, **ME** (López Figueiras 1986; López Figueiras & Morales 1989a).
- Dirinaria consimilis* (Stirt.) Awas.  
Corticolous, montane forest, 2400 m, **ME, TR** (López Figueiras 1986; López Figueiras & Morales 1989a).
- Dirinaria leopoldii* (Stein) Awas.  
Corticolous, montane forest, 1100 m, **LA** (López Figueiras 1986).
- Dirinaria picta* (Sw.) Clem. & Shear  
Saxicolous, montane forest, 2400 m, **ME, TA** (López Figueiras 1986).
- \*\**Echinoplaca leucotrichoides* (Vain.) R. Sant.  
Foliicolous, montane forest, 1700 m, R. Lücking 95-118 (herb. lich. CEILT, herb. Lücking), **ME**.
- Erioderma chilense* Mont.  
Corticolous, montane forest and paramo, 2500-3600 m, **ME** (López Figueiras 1986).
- Erioderma soledium* D. Gallow. & P. M. Jörg.  
Corticolous, montane forest and paramo, 2450-3200 m, **ME, TA, TR** (López Figueiras 1986; Marcano 1994).
- Erioderma verruculosum* Vain.  
Corticolous, montane forest, 2900 m, **ME** (López Figueiras 1986).
- Erioderma wrightii* Tuck.  
Corticolous, montane forest-paramo transition zone, 3000-3500 m, **ME** (López Figueiras 1986).
- Everniastrum catawbiense* (Degel.) Hale ex Sipman  
Corticolous, montane forest-paramo transition zone, 2800-3500 m, **ME** (Culberson & Culberson 1981, as *Cetrariastrum*; López Figueiras 1986, as *Cetrariastrum*; Sipman 1986).
- Everniastrum cirrhatum* (E. Fr.) Hale ex Sipman  
Corticolous, saxicolous, montane forest and paramo, 1400-4000 m, **ME, LA, TR** (Culberson & Culberson 1981, as *Cetrariastrum*; López Figueiras 1986, as *Cetrariastrum*; Sipman 1986).
- Everniastrum columbiense* (A. Zahlbr.) Hale ex Sipman  
Corticolous, paramo, 3000-3600 m, **ME, TA, TR** (Vareschi 1973; Culberson & Culberson 1981, as *Cetrariastrum*; López Figueiras 1986, as *Cetrariastrum*; Sipman 1986).
- Everniastrum lipidiferum* (Hale & Wirth) Hale ex Sipman  
Saxicolous, foliicolous, paramo, 2900-3600 m, **ME, TR** (Culberson & Culberson 1981, as *Cetrariastrum*; Sipman 1986).
- Everniastrum nigrociliatum* (Bouly de Lesd.) Hale ex Sipman  
Saxicolous, paramo, 3500 m, **ME** (Culberson & Culberson 1981, as *Cetrariastrum*; López Figueiras 1986, as *Cetrariastrum*; Sipman 1986).
- Everniastrum sorocheilum* (Vain.) Hale ex Sipman  
Corticolous, montane forest-paramo transition zone, 2400-3500 m, **ME, TA, TR** (Culberson & Culberson 1981, as *Cetrariastrum*; López Figueiras 1986, as *Cetrariastrum*; Sipman 1986).
- Everniastrum vexans* (A. Zahlbr. ex. W. Culb. & Ch. Culb.) Hale ex Sipman  
Corticolous, saxicolous, montane forest and paramo, 1400-3600 m, **ME, TA, TR** (Culberson & Culberson 1981, as *Cetrariastrum*; López Figueiras 1986, as *Cetrariastrum*; Sipman 1986; Marcano 1994, as *Cetrariastrum*).
- \*\**Fellhanera bouteillei* (Desm.) Vezda  
Foliicolous, montane forest, 1700 m, R. Lücking 95-105, 95-140 (herb. lich. CEILT, herb. Lücking), **ME**.
- \*\**Fellhanera dominicana* (Vain.) Vezda  
Foliicolous, montane forest, 1700 m, R. Lücking 95-108 (herb. lich. CEILT, herb. Lücking), **ME**.
- \*\**Fellhanera fuscata* (Müll. Arg.) Vezda  
Foliicolous, montane forest, 1700 m, R. Lücking 95-107 (herb. lich. CEILT, herb. Lücking), **ME**.
- \*\**Fellhanera sublecanorina* (Nyl.) Vezda

Foliicolous, montane forest, 1700 m, R. Lücking 95-102 (herb. lich. CEILT, herb. Lücking), **ME**.

*Flavoparmelia caperata* (L.) Hale

Corticolous, saxicolous, terricolous, montane forest, 1800-3000 m, **LA, ME, TR** (Hale 1976b, as *Pseudoparmelia*).

*Flavoparmelia gerlachei* (A. Zahlbr.) Hale

Corticolous, saxicolous, montane forest and paramo, 1800-3750 m, **LA, ME, TR** (Hale 1976; López Figueiras 1986).

*Flavoparmelia leucoxantha* (Müll. Arg.) Hale

Saxicolous, desertic forest, pre-montane forest and montane forest, 700-2000 m, **LA, TA, TR** (Hale 1976b, as *Pseudoparmelia*; López Figueiras 1986, as *Pseudoparmelia*).

*Flavoparmelia rutidota* (Hooker & Tayl.) Hale

Saxicolous, montane forest-paramo transition zone, 2200-3100 m, **LA, ME** (Hale 1976b, as *Pseudoparmelia*).

*Flavoparmelia soredians* (Nyl.) Hale

Saxicolous, montane forest and paramo, 2600-3800 m, **ME** (Hale 1976b, as *Pseudoparmelia*).

*Flavopunctelia flaventior* (Stirt.) Hale

Saxicolous, montane forest and paramo, 2000-3300 m, **ME, TR** (Vareschi 1973; López Figueiras 1986).

*Graphina confluens* Müll. Arg.

Corticolous, montane forest, 1100 m, **LA** (López Figueiras 1986).

\*\**Gyalectidium filicinum* Müll. Arg.

Foliicolous, montane forest, 1700 m, R. Lücking 95-122 (herb. lich. CEILT, herb. Lücking), **ME**.

*Gyalideopsis monospora* Kalb & Vezda

On moss and dead plant debris, clearing in paramo vegetation, 3500 m, **ME** (Kalb 1990).

*Gyalideopsis peruviana* Vezda

On moss and dead plant debris, clearing in paramo vegetation, 3500 m, **ME** (Kalb 1990).

*Gyrostomum scyphuliferum* (Ach.) Nyl.

Corticolous, desertic forest, 800 m, **LA** (López Figueiras 1986).

*Haematomma africanum* (Steiner) Dodge

Corticolous, pasturefield, montane forest, 1200-2000 m, **ME** (Staiger & Kalb 1995); H. Sipman & A. Morales 38052 (B, herb. lich. CEILT), **ME**.

*Haematomma puniceum* (Sw. ex Ach.) Massal.

Corticolous, desertic forest, pre-montane forest and montane forest, 200-1900 m, **LA, ME** (Vareschi 1973; López Figueiras 1986).

*Haematomma rufidulum* (Fée) Massal.

Corticolous, montane forest, **LA** (Staiger & Kalb 1995).

*Hafellia callispora* (Knight) Mayrh. & Sheard

Corticolous, paramo, 3300 m, **ME** (López Figueiras 1986, as *Buellia*).

*Helminthocarpon leprevostii* Fée

Corticolous, pre-montane forest, 800 m, **LA** (López Figueiras 1986).

*Heterocyphelium leucampyx* (Tuck.) Vain.

Corticolous, pre-montane forest, 1100 m, **LA** (López Figueiras 1986).

*Heterodermia albicans* (Pers.) Swinsc. & Krog

Saxicolous, corticolous, montane forest, 1000-2600 m, **LA, ME** (López Figueiras 1986).

*Heterodermia antillarum* (Vain.) Swinsc. & Krog

Saxicolous, corticolous, montane forest and paramo, 1400-3400 m, **ME** (López Figueiras 1986).

*Heterodermia boryi* (Fée) Hale

Saxicolous, corticolous, montane forest and paramo, 900-3500 m, **LA, ME, TA** (López Figueiras 1986).

*Heterodermia casarettiana* (Massal.) Trev.

Saxicolous, corticolous, montane forest and paramo, 1300-3400 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Heterodermia comosa* (Eschw.) Follm. & Redon

Corticolous, desertic forest, pre-montane forest and montane forest, 600-2400 m, **LA** (Vareschi

1973; López Figueiras 1986).

*Heterodermia corallophora* (Tayl.) Skorepa  
Corticolous, saxicolous, desertic forest, montane forest and paramo, 600-3300 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Heterodermia dendritica* (Pers.) Poelt  
Corticolous, montane forest and paramo, 1800-2350 m, **ME** (López Figueiras 1986).

*Heterodermia diademata* (Tayl.) Awas.  
Corticolous, saxicolous, montane forest, 1400-2300 m, **LA, ME, TR** (López Figueiras 1986).

*Heterodermia flabellata* (Fée) Awas.  
Corticolous, saxicolous, montane forest, pre-montane forest and paramo, 1100-3100 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Heterodermia galactophylla* (Tuck) W. Culb. Cfr.  
Corticolous, montane forest, 2300 m, **TR** (López Figueiras 1986).

*Heterodermia isidiophora* (Vain.) Awas.  
Corticolous, saxicolous, montane forest and paramo, 1200-3500 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Heterodermia japonica* (Sato) Swinsc. & Krog  
Corticolous, saxicolous, montane forest and paramo, 700-3600 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Heterodermia lamelligera* (Tayl.) Follm. & Redon  
Corticolous, montane forest, 2300 m, **ME** (López Figueiras 1986).

*Heterodermia lepidota* Swinsc. & Krog  
Corticolous, saxicolous, montane forest, 1400-2000 m, **LA, ME, TA** (López Figueiras 1986).

*Heterodermia leucomela* (L.) Poelt  
Corticolous, montane forest, 1100-2300 m, **LA, ME** (López Figueiras 1986).

*Heterodermia lutescens* (Kurok.) Follm. & Redon  
Corticolous, foliicolous, montane forest and paramo, 1225-3200 m, **LA, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Heterodermia magellanica* (A. Zahlbr.) Swinsc. & Krog  
Corticolous, saxicolous, terricolous, montane forest and paramo, 1300-3750 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Heterodermia microphylla* (Kurok.) Swinsc. & Krog  
Corticolous, saxicolous, foliicolous, montane forest, 1000-2500 m, **ME, TA, TR** (López Figueiras 1986).

*Heterodermia obscurata* (Nyl.) Trev.  
Corticolous, saxicolous, terricolous, montane forest, pre-montane forest and paramo, 700-3500 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Heterodermia podocarpa* (Bél.) Awas.  
Corticolous, montane forest and paramo, 1300-3500 m, **ME** (López Figueiras 1986).

*Heterodermia pseudospeciosa* (Kurok.) W. Culb.  
Corticolous, montane forest, 800-2400 m, **ME, TA** (López Figueiras 1986).

*Heterodermia speciosa* (Wulf.) Trev.  
Corticolous, saxicolous, terricolous, pre-montane forest, montane forest and paramo, 300-3452 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Heterodermia squamulosa* (Degel.) W. Culb.  
Corticolous, saxicolous, montane forest and paramo, 1300-3100 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Heterodermia tremulans* (Müll. Arg.) W. Culb.  
Saxicolous, montane forest, 1800-2100 m, **ME** (López Figueiras 1986).

*Heterodermia tropica* (Kurok.) Sipman, COMB. NOV.  
Basionym: *Anaptychia tropica* Kurokawa, Beih. Nova Hedwigia 6: 36 (1962).  
Saxicolous, montane forest, 2000 m, **ME** (Vareschi 1973; López Figueiras 1986).

*Heterodermia verrucifera* (Kurok.) W. A. Web.  
Corticolous, saxicolous, montane forest and paramo, 1100-3450 m, **LA, ME, TA, TR** (López Figueiras 1986, as *H. leucomela* fo. *verrucifera*).

*Heterodermia vulgaris* (Vain.) Follm. & Redón  
Corticolous, foliicolous, montane forest and paramo, 1225-3000 m, **ME, TR** (López Figueiras 1986).

*Hypogymnia bitteri* (Lyngé) Ahti  
Corticolous, saxicolous, paramo, 3100-4500 m, **ME** (López Figueiras 1986; Marcano 1994).

*Hypotrachyna andensis* Hale  
Corticolous, saxicolous, montane forest and paramo, 1600-4000 m, **ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna bogotensis* (Vain.) Hale  
Corticolous, saxicolous, muscicolous, terricolous, montane forest and paramo, 2000-4500 m, **ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna brevirhiza* (Kurok.) Hale  
Corticolous, saxicolous, montane forest and paramo, 1700-4045 m, **ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna caraccensis* (Tayl.) Hale  
Corticolous, saxicolous, terricolous, montane forest and paramo, 2350-4500 m, **ME, TA, TR** (Vareschi 1973, as *Parmelia*; Hale 1975; López Figueiras 1986).

*Hypotrachyna cendensis* Hale & López Figueiras  
Saxicolous, paramo, 2800-3400 m, **ME** (Hale & López-Figueiras 1978; López Figueiras 1986).

*Hypotrachyna chicitae* (Hale) Hale  
Saxicolous, montane forest and paramo, 2600-3750 m, **ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna chlorina* (Müll. Arg.) Hale  
Corticolous, saxicolous, terricolous, montane forest and paramo, 1400-3200 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna costaricensis* (Nyl.) Hale  
Corticolous, saxicolous, terricolous, muscicolous, montane forest and paramo, 1400-3500 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna croceopustulata* (Kurok.) Hale

Corticolous, saxicolous, montane forest and paramo, 1750-3750 m, **ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna dactylifera* (Vain.) Hale  
Corticolous, saxicolous, montane forest and paramo, 1400-3100 m, **LA, ME, TA, TR** (Vareschi 1973, as *Parmelia*; Hale 1975; López Figueiras 1986).

*Hypotrachyna degelii* (Hale) Hale  
Corticolous, saxicolous, montane forest and paramo, 1400-3500 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna densirhizinata* (Kurok.) Hale  
Corticolous, saxicolous, muscicolous, montane forest and paramo, 2400-3600 m, **ME, TA, TR** (Vareschi 1973, as *Parmelia*; Hale 1975; López Figueiras 1986).

*Hypotrachyna dentella* (Hale & Kurok.) Hale  
Saxicolous, montane forest and paramo, 1600-4500 m, **LA, ME, TA** (Hale 1975; López Figueiras 1986).

*Hypotrachyna ducalis* (Jatta) Hale  
Corticolous, saxicolous, montane forest and paramo, 2400-3200 m, **ME** (Hale 1975; López Figueiras 1986).

*Hypotrachyna enderythraea* (A. Zahlbr.) Hale  
Corticolous, saxicolous, montane forest and paramo, 2000-4000 m, **ME, TA, TR** (Hale, 1975; López Figueiras 1986).

*Hypotrachyna endochlora* (Leight.) Hale  
Corticolous, saxicolous, montane forest and paramo, 2160-3400 m, **ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna ensifolia* (Kurok.) Hale  
Corticolous, saxicolous, montane forest and paramo, 2000-4500 m, **ME, TA, TR** (Vareschi 1973, as *Parmelia*; Hale 1975; López Figueiras 1986).

*Hypotrachyna erythrodes* (A. Zahlbr.) Hale  
Corticolous, saxicolous, montane forest and paramo, 1400-3500 m, **ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna exsplendens* (Hale) Hale

Corticolous, saxicolous, montane forest and paramo, 1200-4750 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna flavida* (A. Zahlbr.) Hale  
Saxicolous, montane forest and paramo, 900-3800 m, **ME, TA, TR** (Vareschi 1973, as *Parmelia*; Hale 1975; López Figueiras 1986).

*Hypotrachyna flavovirens* (Kurok.) Hale  
Corticolous, paramo-montane forest transition zone, 2800-3300 m, **ME** (Hale 1975; López Figueiras 1986).

*Hypotrachyna gigas* (Kurok.) Hale  
Corticolous, saxicolous, terricolous, montane forest and paramo, 2400-4500 m, **ME, TA, TR** (Vareschi 1973, as *Parmelia*; Hale 1975; López Figueiras 1986).

*Hypotrachyna gondylophora* (Hale) Hale  
Corticolous, saxicolous, montane forest and paramo, 2000-3600 m, **LA, ME, TA, TR** (Vareschi 1973, as *Parmelia*; Hale 1975; López Figueiras 1986).

*Hypotrachyna imbricatula* (A. Zahlbr.) Hale  
Corticolous, saxicolous, muscicolous, montane forest, pre-montane forest and paramo, 900-3600 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna immaculata* (Kurok.) Hale  
Saxicolous, rarely corticolous, montane forest and paramo 2000-3000 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna isidiocera* (Nyl.) Hale  
Corticolous, saxicolous, montane forest and paramo, 1400-3000 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna laevigata* (Smith) Hale  
Corticolous, saxicolous, montane forest and paramo, 2000-3600 m, **ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna lineariloba* (Kurok.) Hale  
Corticolous, montane forest and paramo, 2100-3500 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna livida* (Tayl.) Hale  
Saxicolous, montane forest and paramo, 1800-3500 m, **ME, TA** (Hale 1975; López Figueiras 1986).

*Hypotrachyna lopezii* Hale  
Corticolous, saxicolous, montane forest and paramo 2700-4045 m, **ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna meridensis* Hale & López F.  
Corticolous, montane forest and paramo, 1600-3100 m, **ME** (Hale & López-Figueiras 1978).

*Hypotrachyna microblasta* (Vain.) Hale  
Corticolous, saxicolous, terricolous, montane forest, pre-montane forest and paramo, 800-3500 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna minima* (Lyngé) Hale  
Saxicolous, montane forest-paramo transition zone, 2400-3000 m, **TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna monilifera* (Kurok.) Hale  
Corticolous, saxicolous, montane forest and paramo, 2000-3600 m, **ME, TA** (Hale 1975; López Figueiras 1986).

*Hypotrachyna neodissecta* (Hale) Hale  
Corticolous, montane forest and paramo, 1300-3452 m, **LA, ME** (Hale 1975; López Figueiras 1986).

*Hypotrachyna neoflavida* Hale & López F.  
Saxicolous, paramo, 3000 m, **TA** (Hale & López-Figueiras 1978; López Figueiras 1986).

*Hypotrachyna novella* (Vain.) Hale  
Corticolous, montane forest, 2000 m, **ME** (Hale 1975; López Figueiras 1986).

*Hypotrachyna obscurella* (Vain.) Hale  
Saxicolous, corticolous, montane forest and paramo, 1450-3500 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna oostingii* (Dey) Hale  
Corticolous, paramo, 3300-3500 m, **ME** (Hale 1975; López Figueiras 1986).

*Hypotrachyna osseoalba* (Vain.) Park & Hale  
Corticolous, saxicolous, montane forest and paramo, 1225-3300 m, **LA, ME, TA, TR** (Hale 1975, as *H. formosana*; López Figueiras 1986, as *H. formosana*).

*Hypotrachyna osteoleuca* (Nyl.) Hale  
Saxicolous, corticolous, montane forest and paramo, 1500-3600 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna paramensis* W. Culb. & C. Culb.  
Saxicolous, corticolous, terricolous, montane forest and paramo, 2100-3750 m, **ME, TA, TR** (Hale & López Figueiras 1978, as *Everniastrum*; Culberson & Culberson 1981; López Figueiras 1986).

*Hypotrachyna partita* Hale  
Saxicolous, corticolous, montane forest and paramo, 1900-3500 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna peruviana* (Nyl.) Hale  
Corticolous, saxicolous, montane forest, 1225-2400 m, **LA, ME, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna physcioides* (Nyl.) Hale  
Saxicolous, corticolous, montane forest and paramo, 1225-4000 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna physodalica* (Hale) Hale  
Corticolous, saxicolous, montane forest-paramo transition zone, 2950-4200 m, **ME, TA** (Hale 1975; López Figueiras 1986).

*Hypotrachyna primitiva* Hale & López F.  
Corticolous, saxicolous, muscicolous, montane forest-paramo transition zone, 2900-4750 m, **ME, TA, TR** (Hale & López-Figueiras 1978; López Figueiras 1986).

*Hypotrachyna producta* Hale  
Corticolous, saxicolous, montane forest and paramo, 2150-3500 m, **ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna prolongata* (Kurok.) Hale

Corticolous, saxicolous, montane forest and paramo, 2000-3600 m, **ME, TA, TR** (Vareschi 1973, as *Parmelia*; Hale 1975, also as *H. rachista*; López Figueiras 1986, also as *H. rachista*).

*Hypotrachyna protenta* Hale  
Saxicolous, corticolous, pre-montane forest, montane forest and paramo, 800-4000 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna pseudosinuosa* (Asah.) Hale  
Saxicolous, corticolous, montane forest and paramo, 1400-3750 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna pulvinata* (Fée) Hale  
Corticolous, saxicolous, terricolous, montane forest and paramo, 2000-4200 m, **ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna reducens* (Nyl.) Hale  
Corticolous, saxicolous, montane forest and paramo, 2442-4000 m, **ME, TA, TR** (Vareschi 1973, as *Parmelia*; Hale 1975; López Figueiras 1986).

*Hypotrachyna revoluta* (Flk.) Hale  
Saxicolous, corticolous, montane forest and paramo, 2000-3200 m, **LA, ME** (Hale 1975; López Figueiras 1986).

*Hypotrachyna rhabdiformis* (Kurok.) Hale  
Corticolous, terricolous, montane forest-paramo transition zone, 2900-3100 m, **TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna rockii* (A. Zahlbr.) Hale  
Corticolous, saxicolous, montane forest and paramo, 1250-4750 m, **LA, ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna sinuosa* (Smith) Hale  
Saxicolous, corticolous, terricolous, montane forest and paramo, 1750-4045 m, **ME, TA, TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna subformosana* Hale INED.  
Corticolous, saxicolous, montane forest, 1500-2400 m, **LA, ME** (López-Figueiras 1986)

*Hypotrachyna subsaxatilis* (B. de Lesd.) Hale  
Saxicolous, corticolous, paramo, 3000-4045 m, **ME,**



**TR** (Hale 1975; López Figueiras 1986).

*Hypotrachyna velloziae* (Vain.) Hale  
Corticolous, montane forest, 1500-1600 m, **LA**  
(Hale 1975; López Figueiras 1986).

*Icmadophila aversa* (Nyl.) Rambold & Hertel  
Corticolous, saxicolous, terricolous, montane forest  
and paramo, 2400-3100 m, **ME, TA, TR** (López-  
Figueiras 1986, as *Glossodium*; Rambold et al.  
1993; Marcano 1994, as *Glossodium*).

*Imshaugia aleurites* (Ach.) S. L. F. Meyer  
Saxicolous, paramo, 3500-3600 m, **ME** (López  
Figueiras 1986, as *Parmeliopsis*).

*Lecanographa illecebrosula* (Müll. Arg.) Egea &  
Torrente  
Corticolous, montane forest, 2600 m, **ME** (Egea &  
Torrente 1994).

*Lecanora caesiiorubella* Ach. subsp. *glaucomodes*  
(Nyl.) Imsh. & Brodo  
Corticolous, montane forest, 1100 m, **LA** (López  
Figueiras 1986).

*Lecanora chlarotera* Nyl. s. lat.  
Corticolous, montane forest, 1100 m, **LA** (López  
Figueiras 1986).

*Lecanora concilians* Nyl.  
Corticolous, pre-montane forest, 800 m, **LA** (López  
Figueiras 1986).

*Lecanora glaucoides* Nyl.  
Corticolous, montane forest, 1100 m, **LA** (Vareschi  
1973).

*Lecidea acerviformis* Murray  
Saxicolous, paramo, 3500-4750 m, **ME** (Vareschi  
1973, as *Lecanora polytropia*).

*Lecidea biatorina*  
Saxicolous, paramo, 3500 m, **ME** (López Figueiras  
1986).

*Lecidea hypomela* Nyl.  
Corticolous, montane forest, 1100 m, **LA** (López  
Figueiras 1986).

*Lecidea lapicida* (Ach.) Ach.  
Saxicolous, paramo, 3900-4150 m, **ME** (Vareschi  
1973).

\*\**Lecidea limosa* Ach.  
Corticolous, paramo, 4000-4700 m, Marcano 7160  
(B, herb. lich. CEILT), **ME**.

*Lecidella carpathica* Körb.  
Saxicolous, paramo, 4150 m, **ME** (Hertel 1971, as  
*Lecidea durietzii*; Vareschi 1973, as *Lecidea*  
*durietzii*).

*Lecidella elaeochroma* (Ach.) M. Choisy  
Corticolous, paramo, 3500-4720 m, **ME** (Hertel 1971;  
Vareschi 1973).

*Lecidella stigmataea* (Ach.) Hertel & Leuckert  
Saxicolous, paramo, 4250 m, **ME** (Hertel 1971;  
Vareschi 1973).

*Lecidella viridans* (Flot.) Körb.  
Saxicolous, montane forest, 1600 m, **ME** (Hertel  
1971; Vareschi 1973).

\*\**Lepraria neglecta* Auct.  
Humicolous, saxicolous, paramo, 3500-4000 m,  
Marcano 95-03 (herb. lich. CEILT), **ME**.

*Leprocaulon arbuscula* (Nyl.) Nyl.  
Terricolous, montane forest, 2300-2400 m, **TA**  
(Lamb & Ward 1977; López Figueiras 1986;  
Marcano 1994; Marcano et al. 1996).

*Leprocaulon congestum* (Nyl.) Lamb & Ward  
Saxicolous, terricolous, corticolous, montane forest  
and paramo, 2700-4500 m, **ME, TA, TR** (Vareschi  
1973, as *Stereocaulon congestum* and *S. albicans*;  
Lamb & Ward 1977; López Figueiras 1986; Kalb  
1991; Marcano et al. 1996).

*Leprocaulon microscopicum* (Vill.) Gams  
Terricolous, humicolous, paramo 3500-3600 m, **ME**  
(Marcano et al. 1996).

*Leptogium aciculare* P. M. Jörg.  
Corticolous, paramo, 3500 m, **ME** (López Figueiras  
1986).

*Leptogium andinum* P. M. Jörg.

Corticolous, saxicolous, montane forest and paramo, 2250-4045 m, **ME, TA, TR** (López Figueiras 1986).

*Leptogium austroamericanum* (Malme) Dodge  
Corticolous, saxicolous, pre-montane forest and montane forest, 1000-2300 m, **LA, ME, TR** (Vareschi 1973; López Figueiras 1986).

*Leptogium azureum* (Sw.) Mont.  
Corticolous, terricolous, saxicolous, montane forest and paramo, 1400-3500 m, **ME, TA, TR** (López Figueiras 1986).

*Leptogium burgessii* (L.) Mont.  
Corticolous, saxicolous, montane forest and paramo, 2250-3500 m, **ME, TA, TR** (López Figueiras 1986; Marcano 1994).

*Leptogium burnetiae* Dodge  
Corticolous, saxicolous, montane forest and paramo, 2200-4045 m, **ME, TA, TR** (López Figueiras 1986).

*Leptogium chloromelum* (Sw.) Nyl.  
Corticolous, saxicolous, montane forest and paramo, 2000-3500 m, **ME, TR** (Vareschi 1973; López Figueiras 1986).

*Leptogium coralloideum* (Mey. & Flot.) Vain.  
Corticolous, montane forest, 1600-2000 m, **ME** (Vareschi 1973; López Figueiras 1986).

*Leptogium corniculatum* (Hoffm.) Minks  
Terricolous, paramo, 3500 m, **ME** (López Figueiras 1986, as *L. palmatum*).

*Leptogium cyanescens* (Rabenh.) Körb.  
Corticolous, terricolous, desertic forest, montane forest and paramo, 500-3200 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Leptogium denticulatum* Nyl.  
Corticolous, montane forest and paramo, 1400-3500 m, **ME, TA, TR** (López Figueiras 1986).

*Leptogium diaphanum* (Sw.) Mont.  
Corticolous, terricolous, saxicolous, montane forest and paramo, 1400-3450 m, **ME, TA, TR** (López Figueiras 1986, also as *Leptogium punctulatum*).

*Leptogium digitatum* (Massal.) A. Zahlbr.  
Corticolous, montane forest and paramo, 2250-3750 m, **ME, TE** (López Figueiras 1986; Marcano 1994).

*Leptogium floridanum* Sierk  
Corticolous, paramo, 3750 m, **ME** (López Figueiras 1986).

*Leptogium furfuraceum* (Harm.) Sierk  
Saxicolous, montane forest and paramo transition zone, 2700-3300 m, **ME** (López Figueiras 1986).

*Leptogium hibernicum* Mitch. ex P. M. Jörg.  
Corticolous, montane forest and paramo, 2400-3200 m, **ME, TR** (López Figueiras 1986).

*Leptogium* aff. *moluccanum* (Pers.) Vain.  
Corticolous, paramo, 3500 m, **ME** (López Figueiras 1986, misspelt as *L. involuccanum*).

*Leptogium isidiosellum* (Riddle) Sierk  
Corticolous, saxicolous, desertic forest, montane forest and paramo, 500-3300 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Leptogium laceroides* B. de Lesd.  
Corticolous, saxicolous, montane forest and paramo, 2300-3500 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Leptogium mandonii* P. M. Jörg.  
Corticolous, saxicolous, montane forest and paramo, 2400-4400 m, **ME, TA, TR** (López Figueiras 1986).

*Leptogium marginellum* (Sw.) S. F. Gray.  
Corticolous, pre-montane forest, 1000-1600 m, **ME** (López Figueiras 1986).

*Leptogium menziesii* (Ach.) Mont.  
Corticolous, terricolous, montane forest and paramo, 2250-4045 m, **ME, TA** (López Figueiras 1986).

*Leptogium microstictum* Vain.  
Corticolous, montane forest, 1225-2450 m, **ME, TR** (López Figueiras 1986).

*Leptogium milligranum* Sierk

- Corticolous, montane forest and paramo 1300-3000 m, **LA, ME, TA** (López Figueiras 1986).
- Leptogium olivaceum* (Hook.) A. Zahlbr.  
Corticolous, montane forest and paramo, 1400-3500 m, **ME, TA, TR** (Vareschi 1973, as *L. foveolatum*; López Figueiras 1986, as *L. foveolatum*).
- Leptogium papillosum* (B. de Lesd.) Dodge  
Corticolous, montane forest and paramo, 2000-3300 m, **ME, TA, TR** (López Figueiras 1986).
- Leptogium phyllocarpum* (Pers.) Mont.  
Corticolous, saxicolous, montane forest and paramo, 900-3750 m, **LA, ME, TA, TR** (López Figueiras 1986).
- Leptogium resupinans* Nyl.  
Corticolous, paramo, 3000-3500 m, **ME, TA** (López Figueiras 1986; Kalb 1991).
- Leptogium reticulatum* Mont.  
Corticolous, sometimes saxicolous, montane forest and paramo 1400-3100 m, **ME, TA, TR** (López Figueiras 1986).
- Leptogium stipitatum* Vain.  
Corticolous, montane forest and paramo, 1400-3300 m, **LA, ME, TR** (López Figueiras 1986).
- Leptogium vesiculosum* (Sw.) Malme  
Corticolous, pre-montane forest and montane forest, 1000-1600 m, **LA, ME, TA** (Vareschi 1973; López Figueiras 1986).
- Lobaria corrosa* (Ach.) Vain.  
Corticolous, montane forest-paramo transition zone, 2550-2950 m, **ME** (Vareschi 1973; López Figueiras 1986).
- Lobaria crenulata* (Hook. in Kunth) Trev.  
Corticolous, montane forest and paramo, 1225-3600 m, **LA, ME, TA, TR** (López Figueiras 1986).
- Lobaria exornata* (A. Zahlbr.) Yoshim.  
Corticolous, montane forest, 1550-2900 m, **ME** (López Figueiras 1986).
- Lobaria pallida* (Hook. in Kunth) Trev.  
Corticolous, montane forest and paramo, 2400-3600 m, **ME, TA, TR** (Vareschi 1973; López Figueiras 1986).
- Lobaria peltigera* (Del.) Vain.  
Corticolous, montane forest, 2600-2700 m, **ME, TA** (López Figueiras 1986).
- Lobaria subexornata* Yoshim.  
Corticolous, montane forest, 2000-2300 m, **ME** (López Figueiras 1986).
- Lopezaria versicolor* (Fée) Kalb & Hafelln.  
Corticolous, in light, mossy forest, montane forest and paramo, 1450-3300 m, **LA, ME, TA, TR** (Vareschi 1973, as *Megalospora*; Sipman 1983, as *Catinaria*; López Figueiras 1986, as *Catinaria*; Marcano 1994).
- Megalospora foersteri* Kalb.  
On moss, low paramo forest, 4200 m, **ME** (Kalb 1990).
- Megalospora sulphurata* Meyen & Flot. var. *sulphurata*  
Corticolous, montane forest, 2400 m, **TA** (Sipman 1983; López Figueiras 1986).
- Megalospora sulphurata* Meyen & Flot. var. *nigricans* (Müll. Arg.) Riddle  
Corticolous, rarely saxicolous, in a wide range of open, humid forests, montane forest and paramo, 2000-3100 m, **ME, TA, TR** (Sipman 1983; López Figueiras 1986).
- Megalospora tuberculosa* (Fée) Sipman  
Corticolous, on canopy branches, on shrubs in clearings or on less exposed branches, in montane forest and paramo, 1300-3100 m, **LA, ME, TA, TR** (Sipman 1983; López Figueiras 1986).
- Megaspora verrucosa* (Ach.) Hafelln. & V. Wirth  
Saxicolous, paramo, 4250 m, **ME** (Hertel 1971, as *Pachyospora*; Vareschi 1973, as *Pachyospora*).
- Melanelia panniformis* (Nyl.) Essl.  
Saxicolous, paramo, 3500-4200 m, **ME** (Esslinger 1977; López Figueiras 1986).
- Menegazzia terebrata* (Hoffm.) Massal.  
Corticolous, montane forest and paramo, 2300-

3100 m, **ME, TA, TR** (López Figueiras 1986; Marcano 1994).

*Multiclavula mucida* (Fr.) Petersen  
Corticolous, montane forest, 2700 m, **ME** (Oberwinkler 1984).

*Mycomicrothelia subfallens* (Müll. Arg.) D. Hawksw.  
Corticolous, montane forest, 2500-3000 m, **ME** (Aptroot 1991).

*Myriotrema compunctum* (Ach.) Hale  
Corticolous, pre-montane forest, 800 m, **LA** (López Figueiras 1986).  
*Myriotrema occultum* (Eschw.) Hale  
Corticolous, pre-montane forest, 800 m, **LA** (López Figueiras 1986).

*Myriotrema pachystomum* (Nyl.) Hale  
Corticolous, montane forest, 2400 m, **ME** (López Figueiras 1986, as *Ocellularia*).

*Nephroma helveticum* Ach.  
Corticolous, montane forest and paramo, 2700-3600 m, **ME, TR** (López Figueiras 1986; Marcano 1994).

*Normandina pulchella* (Borr.) Nyl.  
Lichenicolous, corticolous, muscicolous, montane forest and paramo, 2400-3500 m, **ME, TA, TR** (López Figueiras 1986; Marcano 1994).

*Ocellularia cavata* (Ach.) Müll. Arg.  
Corticolous, montane forest, 2600-3000 m, **ME** (López Figueiras 1986).

*Ocellularia eumorpha* (Stirt.) Hale  
Corticolous, montane forest, 2400 m, **ME** (López Figueiras 1986, as *Thelotrema*).

*Ocellularia isidiifera* Hale  
Corticolous, montane forest, 2200-2400 m, **ME** (López Figueiras 1986).

*Ocellularia leucomelana* (Nyl.) Hale  
Corticolous, montane forest, 2400 m, **ME** (López Figueiras 1986, as *Thelotrema*).

*Ocellularia perforata* (Leight.) Müll. Arg.

Corticolous, montane forest, 2400 m, **ME** (López Figueiras 1986).

\*\**Ochrolechia africana* Vain.  
Corticolous, on wood of fencepost between meadow and road (former mossy forest area), montane forest, 1200 m, H. Sipman & A. Morales 38056(B, herb. lich. CEILT), **ME**.

*Omphalina ericetorum* (Pers. ex Fr.) M. Lange  
Terricolous, paramo, 3500 m, **ME** (Oberwinkler 1984).

*Omphalina foliacea* P. M. Jörg.  
Muscicolous, humicolous, corticolous, paramo, 3500 m, **ME** (Jorgensen M. 1989).

*Oropogon aliphaticus* Essl.  
Corticolous, or on soil among vegetation, paramo 3050-3100 m, **ME, TR** (Esslinger 1989).

*Oropogon americanus* Essl.  
Corticolous, or on soil or rocks, paramo, 3050-4100 m, **ME, TR** (Esslinger 1989).

*Oropogon atranorinus* Essl.  
Corticolous, montane forest and paramo, 2000-3100 m, **ME, TR** (López Figueiras 1986; Esslinger 1989; Marcano 1994).

*Oropogon barbaticus* Essl.  
Corticolous, saxicolous, or on the ground, paramo, 2700-4045 m, **ME, TA, TR** (Esslinger 1989; Marcano 1994).

*Oropogon bicolor* Essl.  
On soil with other vegetation, sometimes on rock or bark, montane forest and paramo, 2600-4200 m, **ME, TA, TR** (Esslinger 1989).

*Oropogon byssaceus* Essl.  
Saxicolous, paramo, 4045 m, **ME** (Esslinger 1989).

*Oropogon colibor* Essl.  
Corticolous, sometimes on the ground, paramo, 3650-4000 m, **ME** (Esslinger 1989).

*Oropogon diffractaicus* Essl.  
Corticolous, sometimes on rock or on soil among vegetation, montane forest and paramo, 1600-

4000 m, **ME, TA, TR** (Esslinger 1989).

*Oropogon fissuratus* Essl.

Corticolous, or on soil among vegetation, montane forest and paramo, 1600-3600 m, **ME, TA** (Esslinger 1989).

*Oropogon formosanus* Asahina

Corticolous, also on rock or on soil among vegetation, montane forest, 2400-4200 m, **ME, TA, TR** (Esslinger 1989).

*Oropogon granulatus* Essl.

Corticolous, terricolous, saxicolous, montane forest, 2600-3600 m, **ME, TA, TR** (Esslinger 1989).

*Oropogon halei* Essl.

Corticolous, or rarely on rock, montane forest and paramo, 2800-4000 m, **ME, TR** (Esslinger 1989).

*Oropogon lateralis* Essl.

Saxicolous, paramo, 3100-3200 m, **ME** (Esslinger 1989).

*Oropogon lopezii* Essl.

Corticolous, montane forest, 2000-3100 m, **ME, TA, TR** (López Figueiras 1986; Esslinger 1989).

*Oropogon lorobic* Essl.

Corticolous, also on soil, montane forest and paramo, 2450-3600 m, **ME, TA, TR** (Esslinger 1989).

*Oropogon loxensis* (Fée) Th. Fr.

Corticolous, saxicolous, sometimes on soil, montane forest and paramo, 2200-4000 m, **ME, TA, TR** (Dodge & Vareschi 1956; Vareschi 1973; López Figueiras 1986; Esslinger 1989).

*Oropogon maurus* Essl.

Corticolous, saxicolous, or on soil among vegetation, montane forest, paramo, 3000-3600 m, **ME, TR** (Esslinger 1989).

*Oropogon parietinus* Essl.

Terricolous, paramo, 3500 m, **TA** (Esslinger 1989).

*Oropogon pseudoloxensis* Essl.

Corticolous, montane forest, 1200-1500 m, **ME** (Esslinger 1989).

*Oropogon sperlingii* Essl.

Corticolous, occasionally on soil or rock, montane forest and paramo, 2400-4100 m, **ME, TA, TR** (Esslinger 1989).

*Oropogon striatulus* Essl.

Corticolous, montane forest-paramo transition zone, paramo, 2900-3100 m, **LA, ME, TA, TR** (Esslinger 1989).

*Oropogon venezuelensis* Essl.

On soil among vegetation, paramo, 3100 m, **ME** (Esslinger 1989).

*Pannaria rubiginosa* (Ach.) Bory

Corticolous, montane forest and paramo, 2700-3500 m, **ME, TA** (López Figueiras 1986).

*Paraparmelia alabamensis* (Hale & McCullough) Elix & Johnston

Saxicolous, montane forest, 1400-2500 m, **LA, TR** (Hale 1976b, as *Pseudoparmelia*).

*Parathelium indutum* Nyl.

Corticolous, montane forest, 2200-2800 m, **ME, TA** (López Figueiras 1986; Marcano 1994).

*Parmeliella nigrocincta* (Mont.) Müll. Arg.

Corticolous, paramo, 3500 m, **ME** (López Figueiras 1986; Marcano 1994).

*Parmeliella pannosa* (Sw.) Müll. Arg.

Corticolous, montane forest and montane forest-paramo transition zone, 1225-3000 m, **ME, TA, TR** (López Figueiras 1986).

*Parmelina versiformis* (Kremp.) Hale

Corticolous or saxicolous, montane forest and paramo, 2600-3500 m, **ME** (Hale 1976; López Figueiras 1986).

*Parmelinopsis cleefii* (Sipman) V. Marcano & Sipman COMB. NOV.

Basionym: *Parmelina cleefii* Sipman, Proceed. Kon. Ned. Akad. Wetensch. C 83(4): 352 (1980). Saxicolous, paramo, 3450-3500 m, **ME** (López Figueiras 1986, as *Parmelina*).

*Parmelinopsis cryptochlora* (Vain.) Elix & Hale

Corticolous, saxicolous, montane forest-paramo

transition zone, paramo, 2900-3400 m, **ME** (López Figueiras 1986, as *Parmelina*).

*Parmelinopsis damaziana* (A. Zahlbr.) Elix & Hale  
Corticolous, montane forest, 1800-2100 m, **ME**  
(López Figueiras 1986, as *Parmelina*).

*Parmelinopsis horrescens* (Tayl.) Elix & Hale  
Corticolous, pre-montane forest and montane  
forest, 900-3000 m, **LA, ME, TA, TR** (Hale 1976c, as  
*Parmelina*; López Figueiras 1986, as *Parmelina*).

*Parmelinopsis minarum* (Vain.) Elix & Hale  
Corticolous, montane forest, 1225-2700 m, **LA,  
ME, TA, TR** (Hale 1976c, as *Parmelina dissecta*;  
López Figueiras 1986, as *Parmelina dissecta*).

*Parmelinopsis spumosa* (Asah.) Elix & Hale  
Corticolous, montane forest, 2000-2300 m, **ME**  
(Hale 1976c, as *Parmelina*; López Figueiras 1986,  
as *Parmelina*).

*Parmelinopsis swinscowii* (Hale) Elix & Hale  
Saxicolous, montane forest and paramo, 1100-  
3500 m, **LA, ME** (López Figueiras 1986, as  
*Parmelina*).

*Parmentaria chilensis* Fée  
Corticolous, montane forest-paramo transition  
zone, 2350-3000 m, **TA** (López Figueiras 1986).

*Parmotrema arnoldii* (DR) Hale  
Corticolous, saxicolous, montane forest-paramo  
transition zone, 1800-3750 m, **ME, TA** (López  
Figueiras 1986).

*Parmotrema argentinum* (Kremp.) Hale  
Corticolous, desertic forest, 600-700 m, **LA** (López  
Figueiras 1986).

*Parmotrema austrosinense* (A. Zahlbr.) Hale  
Corticolous, saxicolous, montane forest-paramo  
transition zone, 1700-3200 m, **LA, ME** (Vareschi  
1973, as *Parmelia*; López Figueiras 1986).

*Parmotrema bangii* (Vain.) Hale  
Corticolous, montane forest, 1800 m, **LA** (López  
Figueiras 1986).

*Parmotrema blanchetianum* (Müll. Arg.) Hale

Saxicolous, montane forest, 1550-2200 m, **ME**  
(López Figueiras 1986).

*Parmotrema chinense* (Osbeck) Hale & Ahti  
Corticolous, saxicolous, pre-montane forest and  
montane forest, 200-2000 m, **LA, ME** (López  
Figueiras 1986, as *Parmotrema perlatum*).

*Parmotrema concurrens* Hale  
Saxicolous, montane forest, 1700 m, **ME** (López  
Figueiras 1986).

*Parmotrema conformatum* (Vain.) Hale  
Saxicolous, corticolous, montane forest and para-  
mo 1440-2950 m, **LA, ME, TA, TR** (Vareschi 1973,  
as *Parmelia*; López Figueiras 1986).

*Parmotrema crinitum* (Ach.) Hale  
Corticolous, saxicolous, montane forest and para-  
mo, 1200-3600 m, **LA, ME, TA, TR** (Vareschi 1973,  
as *Parmelia*; López Figueiras 1986).

*Parmotrema cristiferum* (Tayl.) Hale  
Corticolous, pre-montane forest and montane  
forest, 200-1400 m, **LA, ME** (López Figueiras 1986).

*Parmotrema dactylinum* Hale INED.  
Saxicolous, montane forest, 1200-2100 m, **ME**  
(López Figueiras 1986).

*Parmotrema delicatulum* (Vain.) Hale  
Saxicolous, corticolous, pre-montane forest and  
montane forest, 800-2500 m, **LA, ME, TA** (López  
Figueiras 1986).

*Parmotrema dilatatum* (Vain.) Hale  
Corticolous, montane forest, 1100 m, **ME, LA**  
(Vareschi 1973, as *Parmelia*; López Figueiras 1986).

*Parmotrema dominicanum* (Vain.) Hale  
Saxicolous, montane forest, 900-1300 m, **ME** (López  
Figueiras 1986).

*Parmotrema eborinum* (Hale) Hale  
Saxicolous, montane forest and paramo, 800-3500  
m, **LA, ME, TA, TR** (López Figueiras 1986).

*Parmotrema ecrinitum* Hale INED. (or misspelling  
of *P. eciliatum* (Nyl.) Hale?)  
Corticolous, montane forest-paramo transition  
zone, 2000-3450 m, **ME** (López Figueiras 1986).

- Parmotrema endosulphureum* (Hillm.) Hale  
Corticolous, saxicolous, pre-montane forest and montane forest, 200-1550 m, **LA, ME** (Vareschi 1973, as *Parmelia*; López Figueiras 1986).
- Parmotrema enteroxanthum* Hale  
Corticolous, montane forest and paramo, 2200-3000 m, **ME, TA** (López Figueiras 1986).
- Parmotrema fasciculatum* (Vain.) Hale  
Corticolous, paramo, 3300 m, **ME** (López Figueiras 1986).
- Parmotrema flavescens* (Kremp.) Hale  
Saxicolous, corticolous, sometimes terricolous, pre-montane forest and montane forest, 790-2600 m, **LA, ME, TA, TR** (López Figueiras 1986).
- Parmotrema fractum* (Hale) Hale  
Corticolous, saxicolous, montane forest-paramo transition zone, 2300-3500 m, **ME, TA, TR** (López Figueiras 1986).
- Parmotrema gardneri* (Dodge) Sérus.  
Corticolous, sometimes saxicolous, montane forest, 1400-2600 m, **LA, ME, TR** (López Figueiras 1986).
- Parmotrema grayanum* (Hue) Hale  
Saxicolous, corticolous, pre-montane forest and montane forest, 800-2500 m, **LA, ME, TA** (López Figueiras 1986).
- Parmotrema hababianum* (Gyeln.) Hale  
Corticolous, montane forest, 1400-2100 m, **ME** (López Figueiras 1986).
- Parmotrema hypomiltoides* (Vain.) Hale  
Corticolous, montane forest, 1300-1900 m, **LA** (López Figueiras 1986).
- Parmotrema larense* López Figueiras  
Corticolous, montane forest, 1400-1500 m, **LA** (López Figueiras 1986).
- Parmotrema latissimum* (Fée) Hale  
Saxicolous, corticolous, pre-montane forest, montane forest and paramo, 790-3500 m, **LA, ME, TA, TR** (López Figueiras 1986).
- Parmotrema leucosemothetum* (Hue) Hale  
Saxicolous, montane forest-paramo transition zone, 1500-3200 m, **ME** (López Figueiras 1986).
- Parmotrema lopezii* Hale  
Corticolous, montane forest, 2400-2750 m, **ME, TA** (López Figueiras 1986).
- Parmotrema madagascariaceum* (Hue) Hale  
Corticolous, saxicolous, montane forest, 1400-2400 m, **LA, ME, TR** (López Figueiras 1986).
- Parmotrema mellissii* (Dodge) Hale  
Corticolous, saxicolous, montane forest and paramo, 1225-3452 m, **LA, ME, TA, TR** (López Figueiras 1986).
- Parmotrema mirandum* (Hale) Hale Cfr.  
Saxicolous, montane forest, 1900-2300 m, **TA, TR** (López Figueiras 1986).
- Parmotrema mordenii* (Hale) Hale  
Saxicolous, montane forest, 2000-2250 m, **ME** (López Figueiras 1986).
- Parmotrema peralbidum* (Hale) Hale  
Corticolous, saxicolous, pre-montane forest, montane forest and paramo, 200-3200 m, **LA, ME, TA, TR** (López Figueiras 1986).
- Parmotrema praesorediosum* (Nyl.) Hale  
Corticolous, saxicolous, pre-montane forest and montane forest, 600-2600 m, **LA, ME, TA** (López Figueiras 1986).
- Parmotrema rampoddense* (Nyl.) Hale  
Corticolous, saxicolous, desertic forest, montane forest and paramo, 600-3300 m, **LA, ME** (López Figueiras 1986).
- Parmotrema reitzii* Hale  
Corticolous, montane forest, 2000-2350 m, **TA** (López Figueiras 1986).
- Parmotrema robustum* (Degel.) Hale  
Corticolous, saxicolous, montane forest and paramo, 1225-3500 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Parmotrema sancti-angelii* (Lynge) Hale  
Saxicolous, corticolous, terricolous, pre-montane forest and montane forest, 700-2500 m, **LA, ME, TA, TR** (Vareschi 1973, as *Parmelia*; López Figueiras 1986).

*Parmotrema setchellii* (Vain.) Hale  
Corticolous, paramo, 2950 m, **ME** (López Figueiras 1986).

*Parmotrema soreidiiferum* Hale  
Corticolous, montane forest, 2000-2350 m, **TA** (López Figueiras 1986).

*Parmotrema stuppeum* (Tayl.) Hale  
Saxicolous, pre-montane forest and paramo, 800-3200 m, **ME, TA, TR** (López Figueiras 1986).

*Parmotrema subarnoldii* (des Abb.) Hale  
Corticolous, montane forest, 1400-1900 m, **LA, ME** (López Figueiras 1986).

*Parmotrema subtinctorium* (A. Zahlbr.) Hale  
Corticolous, montane forest, 1400-1500 m, **LA** (López Figueiras 1986, as *P. subcrintum*).

*Parmotrema sulphuratum* (Nees & Flot.) Hale  
Corticolous, montane forest, 1400-2400 m, **ME, TA** (López Figueiras 1986).

*Parmotrema tinctorum* (Nyl.) Hale  
Corticolous, saxicolous, desertic forest, pre-montane forest, montane forest and paramo, 200-3100 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Parmotrema ultralucens* (Krog) Hale  
Corticolous, saxicolous, pre-montane forest and montane forest, 700-2000 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Parmotrema virescens* Hale  
Corticolous, montane forest and paramo, 1400-3100 m, **ME, TA** (López Figueiras 1986).

*Parmotrema viridiflavum* (Hale) Hale  
Corticolous, or on rocks, montane forest and paramo, 2000-3000 m, **ME, TA** (López Figueiras 1986).

*Parmotrema xanthinum* (Müll. Arg.) Hale  
Saxicolous, montane forest, 1300-2000 m, **LA, ME** (López Figueiras 1986).

*Parmotrema zollingeri* (Hepp) Hale  
Corticolous, pre-montane forest, montane forest and paramo, 700-3000 m, **ME, TR** (López Figueiras 1986).

*Parmotremopsis antillensis* (Nyl.) Elix & Hale  
Corticolous, montane forest, 1300-2300 m, **ME** (Hale 1976c, as *Parmelina*; López Figueiras 1986, as *Parmelina*).

*Peltigera austroamericana* A. Zahlbr.  
Corticolous, saxicolous, terricolous, muscicolous, pre-montane forest, montane forest and paramo, 790-4000 m, **ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Peltigera canina* (L.) Willd.  
Corticolous, muscicolous, saxicolous, terricolous, montane forest and paramo, 2400-4500 m, **ME, TA, TR** (López Figueiras 1986).

*Peltigera dolichorhiza* (Nyl.) Nyl.  
Corticolous, montane forest, 2300-2400 m, **ME** (Vareschi 1973; López Figueiras 1986).

*Peltigera laciniata* (Merr. ex Riddle) Gyeln.  
Terricolous, corticolous, saxicolous, montane forest and paramo, 790-4750 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Peltigera pulverulenta* (Tayl.) Kremp.  
Corticolous, muscicolous, terricolous, montane forest and paramo, 2200-4750 m, **ME, TA, TR** (López Figueiras 1986; Vareschi 1973).

*Peltigera rufescens* (Weiss) Humb.  
Saxicolous, corticolous, terricolous, montane forest and paramo, 1750-4200 m, **ME, TA, TR** (López Figueiras 1986; Marcano 1994).

*Peltigera spuriella* Vain.  
Terricolous, corticolous, montane forest, 2000-2600 m, **ME, TA, TR** (López Figueiras 1986).

*Peltigera ulcerata* Müll. Arg.  
Terricolous, corticolous, montane forest and



paramo, 1200-3600m, **ME, TA, TR** (López Figueiras 1986).

\*\**Peltigera vainioi* Gyelnik

Terricolous, montane forest and paramo, 2000-3300m, Marcano, Morales et Vidal 7100 (B, H, herb. lich. CEILT, VEN), López Figueiras 27892 (MERF), López Figueiras, Ahti & Jörgensen 17934 (MERF), **ME**

*Peltula tortuosa* (Nees) Wetm.

Saxicolous, desertic forest and pre-montane forest, 500-800 m, López Figueiras 18961, López Figueiras & Smith 20879, 20886 (MERF) **LA; ME** (Marcano 1994).

*Pertusaria culbersonii* Vezda

On dead plant debris, paramo vegetation, 3500 m, **ME** (Kalb 1990).

*Pertusaria hypothamnicola* Dibb.

Corticolous, montane forest, 2000-2300 m, **ME** (López Figueiras 1986).

*Pertusaria tuberculifera* Nyl.

Corticolous, montane forest, 1800-2100 m, **ME** (López Figueiras 1986; Marcano 1994).

*Pertusaria xanthodes* Müll. Arg.

Corticolous, desertic forest, 600 m, **LA** (López Figueiras 1986).

*Phaeographis lobata* (Eschw.) Müll. Arg.

Corticolous, montane forest, 1800 m, **LA** (López Figueiras 1986).

*Phaeophyscia endococcinodes* (Poelt) Essl.

Saxicolous, montane forest and paramo, 1900-4045 m, **ME, TA, TR** (López Figueiras 1986).

*Phaeophyscia hispidula* (Ach.) Moberg

Corticolous, saxicolous, montane forest and paramo, 1300-3300m, **LA, ME, TA, TR** (Vareschi 1973, as *Physcia setosa*; López Figueiras 1986, also as *Physcia setosa*).

*Phlytella andensis* Nyl.

Corticolous, montane forest, 2400-2800 m, **TA** (López Figueiras & Morales 1989b).

*Phyllobaeis imbricatus* (Hook. in Kunth) Kalb &

Gierl

Terricolous, on loamy or humous soil, among mosses, sometimes saxicolous, paramo, 1200-3600 m, **ME, TA, TR** (de Vries & Sipman 1984, as *Baeomyces*; Kalb 1991, as *Baeomyces*; Marcano 1994, as *Baeomyces*).

*Phyllobaeis erythrellus* (Mont.) Kalb

Terricolous, in ecology this variety resembles *P. imbricata*, paramo, 1800-3452 m, **ME, TA, TR** (Vareschi 1973, as *Baeomyces*; de Vries & Sipman 1984, as *Baeomyces imbricatus* var.).

*Phyllobaeis linearis* (De Vries) V. Marcano & Sipman COMB. NOV.

Basionym: *Baeomyces imbricatus* Hook. var. *linearis* De Vries, Proceed. Kon. Ned. Akad. Wetensch. C 87(2):243 (1984).

Terricolous, in ecology this species resembles *P. imbricatus*, paramo, 2400-3200 m, **ME, TA** (de Vries & Sipman 1984, as *Baeomyces imbricatus* var.).

\*\**Phyllobathelium nigrum* R. Sant. & Tibell

Foliicolous, montane forest, 1700m, R. Lücking 95-123 (herb. lich. CEILT, herb. Lücking), **ME**.

\*\**Phyllophiale alba* R. Sant.

Foliicolous, montane forest, 1700m, R. Lücking 95-131 (herb. lich. CEILT, herb. Lücking), **ME**.

*Phyllopsora buettneri* (Müll. Arg.) A. Zahlbr. var. *glauca* (Bouly des Lesd.) Brako

Corticolous, montane forest and paramo, 1400-3500m, **ME, TA** (Brako 1991).

*Phyllopsora chlorophaea* (Müll. Arg.) A. Zahlbr. Corticolous, montane forest, 900-2200m, **ME, TR** (Brako 1991).

*Phyllopsora confusa* Swinsc. & Krog

Corticolous, montane forest and paramo, 1600-3500m, **ME** (Brako 1991).

*Phyllopsora corallina* (Eschw.) Müll. Arg. var. *corallina*

Corticolous, montane forest, 1600 m, **ME** (Brako 1991).

*Phyllopsora corallina* (Eschw.) Müll. Arg. var.

- ochroxantha* (Nyl.) Brako  
Corticolous, montane forest, 1700-2200 m, **ME**  
(Brako 1991).
- Phyllopsora fendleri* (Tuck. & Mont.) Müll. Arg.  
Corticolous, montane forest and paramo, 2400-  
3500 m, **ME, TR** (Brako 1991).
- Phyllopsora intermediella* (Nyl.) A. Zahlbr.  
Corticolous, montane forest, 2100-2400 m, **ME, TA**  
(Brako 1991).
- Phyllopsora isidiotyla* (Vain.) Riddle  
Corticolous, montane forest, 3000 m, **ME** (Brako  
1991).
- Phyllopsora kalbii* Brako  
Corticolous, paramo, 2750 m, **ME** (Kalb 1991).
- Phyllopsora parvifolia* (Eschw.) Müll. Arg. var.  
*parvifolia*  
Corticolous, montane forest, 2600-2900 m, **ME, TR**  
(Brako 1991).
- Physcia aipolia* (Humb.) Fürnrohr  
Corticolous, pre-montane and montane forest,  
700-1200 m, **LA, ME** (Moberg 1989).
- Physcia alba* (Fée) Müll. Arg.  
Corticolous, desertic forest, pre-montane and  
montane forest, 450-3200 m, **LA, ME, TR** (Vareschi  
1973; López Figueiras 1986; Moberg 1989).
- Physcia atrostriata* Moberg  
Corticolous, sometimes saxicolous, desertic fo-  
rest, pre-montane and montane forest, 200-2000 m,  
**LA, ME** (Moberg 1989).
- Physcia cinerea* Moberg  
Saxicolous or corticolous, montane forest and  
paramo, 2500-4500 m, **ME, TR** (Moberg 1989).
- Physcia crista* Nyl.  
Corticolous, pre-montane forest, 500-700 m, **LA**  
(Vareschi 1973; Moberg 1989).
- Physcia decorticata* Moberg  
Corticolous or saxicolous, 1000-2700 m, **LA, ME,**  
**TA** (Moberg 1989).
- Physcia dimidiata* (Arn.) Nyl. var. *ornata* (Nadv.)  
Moberg  
Corticolous or saxicolous, montane forest and  
paramo, 2600-3200 m, **ME, TR** (Moberg 1989).
- Physcia erumpens* Moberg  
Corticolous, montane forest and paramo, 2200-  
3100, **ME** (Moberg 1989).
- Physcia integrata* Nyl.  
Corticolous, also on exposed rocks, pre-montane  
forest and montane forest, 400-3000 m, **LA, ME,**  
**TA, TR** (Vareschi 1973; Moberg 1989, Kalb 1991).
- Physcia krogiae* Moberg  
Corticolous, also on exposed rocks, pre-montane  
forest and montane forest, 700-1200 m, **ME** (Moberg  
1989).
- Physcia lacinulata* Müll. Arg.  
Corticolous, rarely on rocks, pre-montane forest  
and montane forest, 600-2000 m, **ME** (Moberg  
1989).
- Physcia lobulata* Moberg  
Corticolous or saxicolous, montane forest, 1225-  
2400 m, **ME, TR** (Moberg 1989).
- Physcia lopezii* Moberg  
Corticolous, saxicolous or muscicolous, montane  
forest and paramo, 2200-3600 m, **ME, TR, TA**  
(Moberg 1989).
- Physcia manuelii* Moberg  
Corticolous, rarely saxicolous, pre-montane fo-  
rest and montane forest, 300-1700 m, **LA, ME, TA,**  
**TR** (Moberg 1989).
- Physcia pachyphylla* Müll. Arg.  
Corticolous or saxicolous, pre-montane forest,  
montane forest and paramo, 400 m, **LA** (Moberg  
1989).
- Physcia poncinsii* Hue.  
Corticolous or saxicolous, desertic forest, pre-  
montane forest, montane forest and paramo, 200-  
3600 m, **LA, ME** (Moberg 1989).
- Physcia rolfii* Moberg  
Saxicolous, desertic forest, pre-montane forest

- and montane forest, 200-2250 m, **LA, ME** (Moberg 1989).
- Physcia sinuosa* Moberg  
On cacti or trunks of trees, desertic forest and pre-montane forest, 700-1500 m, **LA, ME** (Moberg 1989).
- Physcia solediosa* (Vain.) Lyngé  
Corticolous or saxicolous, pre-montane forest and montane forest, 700-2800 m, **LA, ME, TA** (Moberg 1989).
- Physcia stellaris* (L.) Nyl.  
Corticolous, desertic forest and pre-montane forest, 500-800 m, **LA, ME** (López Figueiras 1986, Moberg 1989).
- Physcia tenuis* Moberg  
Corticolous, rarely on rocks, desertic forest and pre-montane forest, 600-1100 m, **LA** (Moberg 1989).
- Physcia tribacia* (Ach.) Nyl.  
Saxicolous, montane forest, 2000-2800 m, **ME** (Moberg 1989).
- Piccolia conspersa* (Fée) Hafelln.  
Corticolous, montane forest, 1500-2200 m, **ME** (Hafellner 1995).
- Placopsis gelida* (L.) Lindsay  
Saxicolous, montane forest and paramo, 1800-3500 m, **ME, TA** (López Figueiras 1986).
- Placynthiella uliginosa* (Schrad.) Coppins & P. James  
Corticolous, montane forest, 2200 m, **ME** (López Figueiras 1986, as *Lecidea*).
- Polycoccum arnoldii* (Hepp) D. Hawksw.  
Lichenicolous on *Diploschistes cinereo-caesius*, montane forest, 2200 m, **ME** (López Figueiras 1986).
- \*\**Polymeridium albidum* (Müll. Arg.) R. C. Harris  
Corticolous, on bark of fencepost between meadow and road (former mossy forest area), montane forest, 1200 m, H. Sipman & A. Morales 38060 (B, herb. lich. CEIL), **ME**.
- Polymeridium catapastum* (Nyl.) R. C. Harris  
Corticolous, low montane forest, 1000 m, **LA** (López Figueiras 1986; Harris 1991).
- Polymeridium proponens* (Nyl.) R. C. Harris  
Corticolous, high montane forest, 2000-2300 m, **TR** (Harris 1991).
- \**Porina atrocoerulea* Müll. Arg.  
Foliicolous, montane forest, 1700 m., R. Lücking 95-130 (herb. lich. CEILT, herb. Lücking), **ME**.
- \*\**Porina epiphylla* (Fée) Fée  
Foliicolous, montane forest, 1700 m., R. Lücking 95-129 (herb. lich. CEILT, herb. Lücking), **ME**.
- Porina nucula* Ach.  
Corticolous or foliicolous, montane forest, 2350-3000 m, **TA** (López Figueiras 1986).
- Porina octomera* (Müll. Arg.) F. Schill.  
Corticolous, montane forest, 2200-2500 m, **ME** (Hafellner & Kalb 1995).
- Porina umbilicata* Müll. Arg.  
Corticolous, montane forest, 2200-2500 m, **ME** (Hafellner & Kalb 1995, as *Pseudosagedia*).
- Porpidia crustulata* (Ach.) Hertel & Knoph  
Saxicolous, paramo, 3500 m, **ME** (Hertel 1971, as *Lecidea crustulata*; Vareschi 1973, as *Lecidea crustulata*).
- Pseudevernia furfuracea* (L.) Zopf.  
Corticolous, montane forest-paramo transition zone, 2900-3100 m, **TR** (López Figueiras 1986).
- Pseudocyphellaria aurata* (Ach.) Vain.  
Corticolous, montane forest and paramo, 800-3100 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).
- Pseudocyphellaria clathrata* (de Not.) Malme  
Corticolous, montane forest, 1300-2000 m, **LA** (López Figueiras 1986); Marcano 16-9/95 (herb. lich. CEILT) **ME** new record.
- Pseudocyphellaria crocata* (L.) Vain.  
Corticolous, montane forest, 2200-3000 m, **ME, TA** (López Figueiras 1986; Marcano 1994).

- Pseudoparmelia cyphellata* Lynge  
Corticolous, montane forest, 1750 m, **ME** (Hale 1976b).
- Punctelia reddenda* (Stirt.) Krog  
Corticolous, pre-montane forest and montane forest, 800-2900 m, **LA, ME, TA, TR** (López Figueiras 1986; Marcano 1994).
- Punctelia rudecta* (Ach.) Krog  
Corticolous, also on rocks, 1450-3300 m, **LA, ME, TA, TR** (López Figueiras 1986).
- Punctelia stictica* (Del. ex Duby) Krog  
Corticolous, saxicolous, montane forest and paramo, 2000-4200 m, **ME, TR** (Vareschi 1973, as *Parmelia*; López Figueiras 1986).
- Punctelia subrudecta* (Nyl.) Krog  
Saxicolous or corticolous, desertic forest, pre-montane forest, montane forest and paramo, 900-3400 m, **LA, ME, TA, TR** (Vareschi 1973, as *Parmelia*; López Figueiras 1986).
- Pyrenula dermatodes* (Borr.) Schaer.  
Corticolous, montane forest, 2700 m, **TA** (López Figueiras 1986; Marcano 1994).
- Pyrrhospora cinnabarina* (Sommerf.) M. Choisy  
Saxicolous, montane forest, 1750 m, **ME** (López Figueiras 1986, as *Lecidea*; Marcano 1994, as *Lecidea*).
- Pyrrhospora russula* (Ach.) Hafelln. in Kalb & Hafelln.  
Corticolous, pre-montane forest, 600-800 m, **LA** (López Figueiras & Morales 1989b, as *Biatora*).
- Pyxine albovirens* (G.Mey.) Aptroot  
Saxicolous, pre-montane forest and montane forest, 700-2500 m, **LA, ME, TR** (Vareschi 1973; López Figueiras 1986; López-Figueiras & Morales 1989; all as *P. caesiopruinosa*).
- Pyxine berteriana* (Fée) Imsh.  
Saxicolous, montane forest, 1200-2100 m, **ME** (Vareschi 1973; López Figueiras 1986; López-Figueiras & Morales 1989; Marcano 1994).
- Pyxine cocoes* (Sw.) Nyl.  
Saxicolous or corticolous, desertic forest and pre-montane forest, 400-600 m, **LA, ME, TR** (Vareschi 1973; López-Figueiras & Morales 1989).
- Pyxine cognata* Stirt.  
Corticolous, montane forest and paramo, 1500-3100 m, **ME, TA, TR** (López-Figueiras & Morales 1989).
- Pyxine coralligera* Malme  
Saxicolous or corticolous, montane forest, 1100-2800 m, **LA, ME, TA, TR** (Vareschi 1973; López-Figueiras & Morales 1989).
- Pyxine daedalea* Krog & R. Sant.  
Saxicolous or corticolous, montane forest and paramo, 1100-3200 m, **ME** (López-Figueiras & Morales 1989).
- Pyxine endolutea* Kalb  
Corticolous or saxicolous, montane forest, 1800-1900 m, **ME, TR** (López-Figueiras & Morales 1989).
- Pyxine eschweileri* (Tuck.) Vain.  
Corticolous or saxicolous, pre-montane forest, montane forest and paramo, 600-3200 m, **LA, ME** (López-Figueiras & Morales 1989).
- Pyxine limbulata* Müll. Arg.  
Corticolous or saxicolous, paramo, 3800-4200 m, **ME** (López-Figueiras & Morales 1989).
- Pyxine microspora* Vain.  
Saxicolous, montane forest, 1200-2800 m, **LA, ME** (López-Figueiras & Morales 1989).
- Pyxine petricola* Nyl. in Cromb.  
Corticolous or saxicolous, desertic forest, pre-montane forest and montane forest, 400-2900 m, **LA, ME, TA, TR** (López-Figueiras & Morales 1989).
- Pyxine pungens* A. Zahlbr.  
Saxicolous or corticolous, montane forest and montane forest-paramo transition zone, 800-3100 m, **ME** (López Figueiras 1986; López-Figueiras & Morales 1989).
- Pyxine pyxinoides* (Müll. Arg.) Kalb.  
Saxicolous, montane forest-paramo transition zone,

2950-3000m, **ME** (López-Figueiras & Morales 1989).

*Pyxine rhodesiaca* Vain. ex Lynge.

Corticolous, montane forest-paramo transition zone, 2800-3100 m, **ME** (López Figueiras 1986; López-Figueiras & Morales 1989).

*Pyxine subcinerea* Stirt.

Corticolous, saxicolous, desertic forest, 200-400 m, **LA** (López Figueiras 1986; López-Figueiras & Morales 1989).

\*\**Racodium rupestre* Pers.

Saxicolous, paramo, 3000-4500 m, Marcano 94-120 (herb. lich. CEILT), **ME**.

*Ramalina africana* (B. Stein) Dodge.

Corticolous, montane forest, 1200 m, **ME** (Marcano & Morales 1994f).

*Ramalina andina* V. Marcano et A. Morales.

Corticolous, montane forest, 2200-2500 m, **ME, TA** (Marcano & Morales 1994b).

\*\**Ramalina asahinae* W. Culb. & C. Culb.

Corticolous, on tree branches along pasture field, montane forest and paramo, 600-3500 m, Sipman & A. Morales 38071 (B, herb. lich. CEILT), **ME, LA**.

*Ramalina aspera* Räsänen

Corticolous, desertic forest and montane forest, 1200-1950 m, **LA, ME**.

*Ramalina asperula* Kremp.

Corticolous, montane forest, 1200 m, **ME** (López Figueiras 1986).

\*\**Ramalina calcarata* Krog & Swinsc.

Corticolous, montane forest, 1900-2900 m, Marcano 6108, 6116-B (herb. lich. CEILT) **ME, TA**; Morales 141 (herb. lich. CEILT) **ME**.

*Ramalina camptospora* Nyl.

Corticolous, paramo, 3200-3600 m, **ME** (Vareschi 1973, López Figueiras 1986).

*Ramalina canaguensis* V. Marcano et A. Morales

Corticolous, montane forest, montane forest-paramo transition zone, 1200-3200, **ME, TA, TR** (Marcano & Morales 1994d).

*Ramalina caracasana* Müll. Arg.?

Corticolous, desertic forest, 600-800 m, **LA** (López Figueiras 1986).

*Ramalina celastri* (Spreng.) Krog & Swinsc.

Corticolous, montane forest and paramo, 1200-3500 m, **LA, ME, TA** (López Figueiras 1986, also as *R. ecklonii*).

*Ramalina chiguarensis* V. Marcano et A. Morales

Corticolous, montane forest, 1000-2900 m, **ME** (Marcano & Morales 1994b).

*Ramalina cochlearis* A. Zahlbr.

Corticolous, montane forest and paramo, 1700-3800 m, **LA, ME, TA, TR** (Vareschi 1973; Marcano 1994; Marcano & Morales 1994e).

*Ramalina complanata* (Sw.) Ach.

Corticolous, montane forest and paramo, 1100-3500 m, **ME** (Vareschi 1973).

*Ramalina crispata* A. Morales et V. Marcano

Corticolous, montane forest, 1200-2900 m, **ME, TA** (Marcano & Morales 1994b).

*Ramalina cumanensis* Fée

Corticolous, montane forest and paramo, 2100-3550 m, **ME, TR** (Dodge & Vareschi 1956; Vareschi 1973; López Figueiras 1986; Kalb 1991).

*Ramalina dendriscoides* Nyl.

Corticolous, montane forest and paramo, 1600-3100 m, **ME** (Vareschi 1973).

*Ramalina dictyota* Dodge & Vareschi

Corticolous, montane forest and paramo, 2600-3500 m, **LA, ME, TR** (Dodge & Vareschi 1956; Vareschi 1973; López Figueiras 1986).

*Ramalina escorialensis* V. Marcano et A. Morales

Corticolous, montane forest-paramo transition zone, 2500-3000 m, **ME** (Marcano 1994; Marcano & Morales 1994e).

*Ramalina lopezii* A. Morales et V. Marcano

Corticolous, montane forest-paramo transition zone, 2900-3100 m, **TR** (Marcano & Morales 1994b).

\**Ramalina peruviana* Ach.

Corticolous, montane forest, 2800-2900 m, Marcano 172 (herb. lich. CEILT) **ME**; López Figueiras 22276, 25107 (herb. lich. CEILT, MERF) **ME, TA**, first record for the Venezuelan Andes, but cited by Vareschi (1973) from Miranda state.

\*\**Ramalina puiggarii* Müll. Arg.

Corticolous, paramo, 3100-3500 m, Vareschi 5451, 5932 (VEN), **ME, TA**.

*Ramalina pusiola* Müll. Arg.

Corticolous, montane forest and paramo, 900-3500 m, Marcano 6116-A **TA**; Morales 122 **ME**; López Figueiras 17152 **LA** (herb. lich. CEILT, MERF); (Marcano 1994).

\*\**Ramalina rectangularis* Nyl.

Corticolous, montane forest and paramo, 1100-3350 m, Vareschi 5405, 5448, 5504 (VEN) **ME, TA**.

*Ramalina reducta* Krog & Swinsc.

Corticolous, montane forest, 2500-3000 m, **ME, TA** (Marcano & Morales 1993).

*Ramalina subfraxinea* Nyl. var. *confirmata* (Nyl.) N. Stevens

Corticolous, montane forest, 900-1200 m, **ME** (Morales & Marcano 1994).

*Ramalina subpollinaria* Nyl.

Corticolous, montane forest, 2000-2900 m, **ME** (Marcano & Morales 1994e).

*Ramalina tenuissima* V. Marcano et A. Morales  
Corticolous, montane forest, 2200-3400 m, **ME, TA** (Marcano & Morales 1994b).

*Ramalina towarensis* V. Marcano et A. Morales  
Corticolous, montane forest, 1000-1300, **ME** (Marcano & Morales 1994b).

*Ramalina usnea* (L.) R. H. Howe

Corticolous, montane forest and paramo, 1100-3500 m, **ME** (Dodge & Vareschi 1956; Vareschi 1973; López Figueiras 1986).

*Ramalina vareschii* V. Marcano & A. Morales  
Corticolous, montane forest, 1750-3000 m, **ME** (Marcano & Morales 1994e).

*Relicina abstrusa* (Vain.) Hale

Saxicolous, rarely corticolous, pre-montane forest and montane forest, 900-3100 m, **LA, ME, TA, TR** (Hale 1975b; López Figueiras 1986; Marcano 1994).

*Relicina subabstrusa* (Gyeln.) Hale

Corticolous, montane forest, 1200-2300 m, **TR** (Vareschi 1973, as *Parmelia*; Hale 1975b; López Figueiras 1986).

*Rhizocarpon leptolepis* Anzi

Saxicolous, paramo, 3500 m, **ME** (Vareschi 1973).

*Rhizocarpon superficiale* (Schaer.) Vain.

Saxicolous, paramo, 4000-4700 m, **ME** (Vareschi 1973).

\*\**Rhizoplaca melanophthalma* (DC.) Leuckert & Poelt

Terricolous or saxicolous, paramo, 4000-4200 m, Marcano 7046 (B, herb. lich. CEILT), **ME**.

*Rimelia cetrata* (Ach.) Hale & Fletcher

Saxicolous, corticolous, pre-montane forest, montane forest and paramo, 400-4200 m, **LA, ME, TA, TR** (Vareschi 1973, as *Parmelia*; López Figueiras 1986, as *Parmotrema*).

*Rimelia commensurata* (Hale) Hale & Fletcher

Corticolous, saxicolous, montane forest and paramo, 900-3200 m, **LA, ME, TA, TR** (López Figueiras 1986, as *Parmotrema*).

*Rimelia reticulata* (Taylor) Hale & Fletcher

Corticolous, saxicolous, sometimes muscicolous, pre-montane forest, montane forest and paramo, 300-3500 m, **LA, ME, TA, TR** (Vareschi 1973, as *Parmelia*; López Figueiras 1986, as *Parmotrema*).

*Rimelia simulans* (Hale) Hale & Fletcher

Corticolous, saxicolous, montane forest-paramo transition zone, 1400-2750 m, **LA, ME, TA** (López Figueiras 1986, as *Parmotrema*).

*Rimelia subsidiosa* (Müll. Arg.) Hale & Fletcher

Corticolous, saxicolous, pre-montane forest, montane forest and paramo, 900-3300 m, **LA, ME, TA, TR** (López Figueiras 1986, as *Parmotrema*).

*Rimeliella conferenda* (Hale) Kurok.

- Corticulous, montane forest and paramo, 1200-3300m, **LA, ME, TA, TR** (López Figueiras 1986, as *Parmotrema*).
- Rimeliella neotropica* (Kurok.) Kurok.  
Corticulous, montane forest, 1100-2350 m, **LA, ME, TA** (López Figueiras 1986, as *Parmotrema*).
- Rimeliella subsumpta* (Nyl.) Kurok.  
Corticulous, montane forest, 1300-2350 m, **LA, ME, TA** (López Figueiras 1986, as *Parmotrema*).
- Rimeliella subtinctoria* (A. Zahlbr.) Kurok.  
Corticulous, sometimes saxicolous, montane forest-paramo transition zone, 1300-3000 m, **LA, ME** (López Figueiras 1986, as *Parmotrema haitiense* and *Parmotrema sulphuratum*).
- Rinodina colobinoides* (Nyl.) A. Zahlbr.  
Corticulous, tree in pasture, 2000 m, **ME** (Kalb 1990).
- Sagenidiopsis undulata* (Fée) Egea et al.  
Corticulous, montane forest, 1600-2500m, **ME, TR** (López Figueiras 1986, as *Chiodecton dilatatum*).
- Polysporina simplex* (Dav.) Vezda  
Saxicolous, paramo, 4250m, **ME** (Vareschi 1973, as *Sarcogyne*).
- Schistophoron variabile* Tibell  
Corticulous, low montane forest, 1100m, **LA** (Tibell 1982).
- Siphula fastigiata* (Nyl.) Nyl.  
Terricolous, also on rocks, paramo, 3100-4045 m, **ME, TA, TR** (Vareschi 1973; López Figueiras 1986).
- Siphula pteruloides* Nyl.  
Terricolous, paramo, 2700-4000 m, **ME, TA, TR** (Vareschi 1973; López Figueiras 1986; Marcano 1994).
- Solorina crocea* (L.) Ach. Cfr.  
Terricolous, paramo, 3600m, **TA** (López Figueiras 1986).
- Sporastatia testudinea* (Ach.) Massal.  
Saxicolous, paramo, 4250m, **ME** (Vareschi 1973).
- Stereocaulon atlanticum* (Lamb) Lamb.  
Terricolous, saxicolous, muscicolous, montane forest-paramo transition zone, 2700-3600 m, **ME, TA** (López Figueiras 1986).
- Stereocaulon crambidiocephalum* Lamb  
Terricolous, paramo, 3500m, **ME** (López Figueiras 1986).
- Stereocaulon didymicum* Lamb  
Terricolous, saxicolous, montane forest and paramo, 2000-3452 m, **ME, TA, TR** (López Figueiras 1986).
- Stereocaulon meyeri* B. Stein  
Terricolous, montane forest-paramo transition zone, 2450-4200m, **ME, TR** (López Figueiras 1986).
- Stereocaulon microcarpum* Müll. Arg.  
Terricolous, saxicolous, montane forest and paramo, 1400-4045, **LA, ME, TA, TR** (López Figueiras 1986).
- Stereocaulon obesum* Th. Fr.  
Saxicolous, terricolous, montane forest-paramo, 2442-3452 m, **ME** (Vareschi 1973; López Figueiras 1986).
- Stereocaulon pachycephalum* Vain.  
Terricolous, montane forest, 2400-3100m, **TA, TR** (López Figueiras 1986).
- Stereocaulon pityrizans* Nyl.  
Terricolous, saxicolous, montane forest and paramo, 2400-3500m, **ME, TA** (López Figueiras 1986).
- Stereocaulon pomiferum* Duvign.  
Saxicolous, montane forest and paramo, 1500-3300 m, **ME** (López Figueiras 1986).
- Stereocaulon ramulosum* Räusch.  
Terricolous, saxicolous, pre-montane forest, montane forest and paramo, 790-4045 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).
- Stereocaulon strictum* Th. Fr.  
Terricolous, montane forest, 3000 m, **TA** (López Figueiras 1986; Marcano 1994).
- Stereocaulon strictum* Th. Fr. var. *compressum* (Nyl.) Lamb

Terricolous, saxicolous, montane forest and paramo, 1700-3500 m, **ME, TA, TR** (López Figueiras 1986).

*Stereocaulon tomentosum* Fr.

Terricolous, saxicolous, montane forest-paramo transition zone, 2400-4200 m, **ME, TA, TR** (López Figueiras 1986).

*Stereocaulon vesuvianum* Pers.

Terricolous, saxicolous, montane forest and paramo, 2000-4000 m, **ME, TA, TR** (Vareschi 1973).

*Stereocaulon vesuvianum* Pers. var. *nodulosum* (Wallr.) Lamb

Saxicolous, paramo, 3300 m, **ME** (López Figueiras 1986).

*Sticta ambavillaria* (Bory) Ach.

Corticolous, paramo, 3450 m, **ME** (López Figueiras 1986).

*Sticta andensis* (Nyl.) Trev.

Corticolous, saxicolous, montane forest and paramo, 1800-3500 m, **LA, ME, TA, TR** (López Figueiras 1986, as *S. andina*).

*Sticta damaecornis* Pers. Aggr.

Corticolous, montane forest and paramo, 2200-3500 m, **ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Sticta filicina* Ach.

Corticolous, montane forest and paramo, 1800-3550 m, **LA, ME, TA, TR** (López Figueiras 1986).

*Sticta filicinella* (Nyl.) A. Zahlbr.

Corticolous, montane forest, 1800-2600 m, **ME** (Vareschi 1973; López Figueiras 1986).

*Sticta filix* (Sw.) Nyl.

Corticolous, montane forest, 1800-2100 m, **ME** (López Figueiras 1986).

*Sticta fuliginosa* (Dicks.) Ach.

Corticolous, saxicolous, montane forest and paramo, 1400-4750 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Sticta gyalocarpa* (Nyl.) Trev. Cfr.

Corticolous, montane forest-paramo transition zone, 2700-3600 m, **ME** (López Figueiras 1986).

*Sticta humboldtii* Hooker

Corticolous, montane forest-paramo transition zone, 2600-3500 m, **ME** (Vareschi 1973; López Figueiras 1986).

*Sticta orbicularis* (A. Br.) Hue. Cfr.

Corticolous, montane forest, 1400-2600 m, **ME** (López Figueiras 1986).

*Sticta sinuosa* Pers. Aggr.

Corticolous, montane forest and paramo, 1400-3600 m, **ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Sticta tomentosa* Ach.

Corticolous, montane forest and paramo, 1000-3750 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

*Sticta weigelii* (Isert ex Ach.) Vain.

Corticolous, saxicolous, pre-montane forest, montane forest and paramo, 790-4800 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986).

\*\**Strigula antillarum* (Fée) Müll. Arg.

Foliicolous, montane forest, 1700 m, R. Lücking 95-s/n (herb. lich. CEILT, herb. Lücking), cited for Mérida by Santesson (1952), **ME**.

\*\**Strigula platypoda* (Müll. Arg.) R. C. Harris

Foliicolous, montane forest, 1700 m, R. Lücking 95-132 (herb. lich. CEILT, herb. Lücking), **ME**.

\*\**Tapellaria epiphylla* (Müll. Arg.) R. Sant.

Foliicolous, montane forest, 1700 m, R. Lücking 95-101, 95-103 (herb. lich. CEILT, herb. Lücking), **ME**.

\*\**Tapellaria nana* (Fée) R. Sant.

Foliicolous, montane forest, 1700 m, R. Lücking 95-104, 95-103 (herb. lich. CEILT, herb. Lücking), **ME**.

*Teloschistes chrysophthalmus* (L.) Th. Fr.

Corticolous, rarely saxicolous, montane forest and paramo, 2500-3450 m, **LA, ME, TA** (Vareschi 1973; López Figueiras 1986).



*Teloschistes exilis* (Michx.) Vain.

Corticolous, desertic forest, pre-montane forest, montane forest and paramo, 600-3000 m, **LA, ME, TR** (López Figueiras 1986).

*Teloschistes flavicans* (Sw.) Norm.

Corticolous, desertic forest, pre-montane forest, montane forest and paramo, 600-3300 m, **LA, ME, TA, TR** (Keogh & Obando 1972; Vareschi 1973; López Figueiras 1986; Marcano 1994).

*Tephromela atra* (Huds.) Hafelln.

Corticolous, sometimes saxicolous, montane forest and paramo, 1400-3900 m, **LA, ME** (Vareschi 1973, as *Lecanora*; López Figueiras 1986, as *Lecanora*; Marcano 1994, as *Lecanora*).

\*\**Tephromela aglaea* (Sommerf.) Hertel & Rambold

Saxicolous, paramo, 4000-4700 m, Marcano 7090 (B, herb. lich. CEILT), **ME**.

*Tephromela elixii* Kalb

Saxicolous, paramo, 3500 m, **ME** (Kalb 1991).

*Thamnolia vermicularis* (Sw.) Ach. ex Schaer var. *vermicularis*

Terricolous, paramo, 3500-4500 m, **LA, ME, TA, TR** (Vareschi 1973; López Figueiras 1986; Marcano 1992).

*Thelotrema alborosellum* (Nyl.) Tuck.

Corticolous, montane forest, 2400 m, **ME** (López Figueiras 1986, as *Ocellularia*).

*Thelotrema carassense* Vain.

Corticolous, montane forest, 2400 m, **ME** (López Figueiras 1986).

*Thelotrema glaucopallens* Nyl.

Corticolous, montane forest, 2400 m, **ME** (López Figueiras 1986).

*Thelotrema lepadinum* (Ach.) Ach.

Corticolous, montane forest, 2400-2900 m, **ME** (López Figueiras 1986; Marcano 1994).

*Thelotrema neoleucomelanum* Hale INED.

Corticolous, montane forest, 2400 m, **ME** (López

Figueiras 1986).

*Thelotrema sphinctrinellum* Nyl.

Corticolous, montane forest, 2200 m, **ME** (López Figueiras 1986, as *Ocellularia lopezii*).

*Thelotrema plittii* Hale INED.

Corticolous, montane forest, 2400 m, **ME** (López Figueiras 1986).

*Trapelia coarctata* (Sm.) M. Choisy in Werner  
Saxicolous, paramo, 2950-3900 m, **ME** (Hertel 1971; Vareschi 1973).

*Trapelia mooreana* (Carroll) P. James

Saxicolous, montane forest and paramo, 2000-3500 m, **ME** (Hertel 1971, as *Trapelia torelli*; Vareschi 1973, as *Trapelia torelli*).

*Trapelia obtogens* (Th. Fr.) Hertel

Saxicolous, paramo, 3500 m, **ME** (Hertel 1971; Vareschi 1973).

*Tremolecia atrata* (Ach.) Hertel

Saxicolous, paramo, 3900 m, **ME** (Hertel 1971, as *Lecidea dicksonii*; Vareschi 1973, as *Lecidea dicksonii*).

\*\**Tricharia vainioi* R. Sant.

Foliicolous, montane forest, 1700 m, R. Lücking 95-117 (herb. lich. CEILT, herb. Lücking), **ME**.

\*\**Trichothelium bipindense* F. Schill.

Foliicolous, montane forest, 1700 m, R. Lücking 95-126 (herb. lich. CEILT, herb. Lücking), **ME**.

\*\**Trichothelium epiphyllum* Müll. Arg.

Foliicolous, montane forest, 1700 m, R. Lücking 95-127 (herb. lich. CEILT, herb. Lücking), **ME**.

*Trypethelium aeneum* (Eschw.) A. Zahlbr.

Corticolous, montane forest, 1400 m, **TR** (López Figueiras 1986).

*Trypethelium ochroleucum* (Eschw.) Nyl.

Corticolous, pre-montane forest, 500-1000 m, **LA, ME, TA, TR** (López Figueiras 1986; Marcano 1994).

*Trypethelium tropicum* (Ach.) Müll. Arg.

Corticolous, pre-montane forest, 600-900 m, **LA,**

- ME** (López Figueiras 1986; Marcano 1994).
- Tuckneraria laureri* (Kremp.) Randlane & Thell  
Corticolous, paramo, 3500-4200 m, **ME** (Randlane et al. 1994).
- Tylophorella pyrenocarpoides* (Müll. Arg.) Egea  
Corticolous, montane forest, 2200-2250 m, **ME** (López Figueiras 1986; Marcano 1994; both as *T. polyspora*).
- Tylophoron crassiusculum* Tibell  
Corticolous, montane forest, 1300-2000 m, **LA, ME** (Tibell 1982; López Figueiras 1986; Marcano 1994).
- Tylophoron moderatum* Nyl.  
Corticolous, montane forest, 2200-2300 m, **ME** (Tibell 1982; López Figueiras 1986).
- Umbilicaria africana* (Jatta) Krog & Swinsc.  
Saxicolous, paramo, 4045-4750 m, **ME** (Marcano & Morales 1994a).
- Umbilicaria mifafensis* V. Marcano & A. Morales  
Saxicolous, paramo, 4115 m, **ME** (Marcano & Morales 1994a).
- Umbilicaria nylanderiana* (A. Zahlbr.) H. Magn.  
Saxicolous, paramo, 3800-4700 m, **ME** (López Figueiras 1986; Marcano & Morales 1994a).
- Umbilicaria polyphylla* (L.) Baumg.  
Saxicolous, paramo, 3200-4045 m, **ME** (López Figueiras 1986; Marcano & Morales 1994a).
- Umbilicaria polyrrhiza* (L.) Fr.  
Saxicolous, paramo, 2700-3500 m, **ME** (López Figueiras 1986; Marcano & Morales 1994a).
- Umbilicaria subcalvescens* Sipman  
Saxicolous, paramo, 2440-2700 m, **ME** (Sipman & Topham 1992; Marcano 1994; Marcano & Morales 1994a).
- Usnea acanthella* (Lamb) F. J. Walker  
Saxicolous, montane forest and paramo, 1980-4762 m, **ME** (Vareschi 1973, as *U. sulphurea* fo.).
- Usnea amabilis* Motyka  
Corticolous, montane forest, 2000-2300 m, **TR** (Vareschi 1973; López Figueiras 1986).
- Usnea amazonica* Motyka  
Corticolous, montane forest, 300-1800 m, **ME** (Vareschi 1973).
- Usnea andina* Motyka  
Corticolous, montane forest, paramo, 1800-3550 m, **ME** (Vareschi 1973).
- Usnea angulata* Ach.  
Corticolous, montane forest, 2400 m, **TA** (López Figueiras 1986).
- Usnea aspera* (Eschw.) Vain.  
Saxicolous, paramo, 3350 m, **ME** (Vareschi 1973; López Figueiras 1986).
- Usnea aureola* Motyka  
Corticolous, montane forest-paramo transition zone, 3000-4200 m, **ME** (Vareschi 1973).
- Usnea bogotensis* Vain.  
Saxicolous, montane forest-paramo transition zone, 2900-3700 m, **ME** (Vareschi 1973; López Figueiras 1986).
- Usnea bornmuelleri* Stnr.  
Terricolous, saxicolous, paramo, 3000 m, **ME** (Vareschi 1973).
- Usnea brasiliensis* (A. Zahlbr.) Motyka  
Corticolous, paramo, 3520 m, **ME** (Vareschi 1973).
- Usnea caespitia* Motyka  
Saxicolous, montane forest and paramo, 1800-3300 m, **ME** (Vareschi 1973).
- Usnea cinchonae* (Willd.) A. Zahlbr.  
Corticolous, paramo, 3190 m, **ME** (Vareschi 1973).
- Usnea cirrosa* Motyka  
Corticolous, montane forest, 1800 m, **ME** (Vareschi 1973).
- Usnea cladoblephara* (Müll. Arg.) Motyka  
Corticolous, montane forest and paramo, 1800-3400 m, **ME** (Vareschi 1973).
- Usnea cladocarpa* Fée.  
Corticolous, montane forest-paramo transition

zone, 3000 m, **ME** (Vareschi 1973).

*Usnea columbiana* Motyka

Corticolous, montane forest, 2350-3000 m, **TA** (Vareschi 1973; López Figueiras 1986).

*Usnea concinna* Stirt.

Corticolous, montane forest-paramo transition zone, 1980-3190 m, **ME** (Vareschi 1973).

*Usnea duriuscula* Motyka

Corticolous, montane forest, 2400 m, **TA** (Vareschi 1973; López Figueiras 1986; Marcano 1994).

*Usnea durietzii* Mot.

Saxicolous, paramo, 3200-4750, **ME** (Walker 1985; López Figueiras 1986).

*Usnea finckii* A. Zahlbr.

Corticolous, montane forest-paramo transition zone, 3000-3190 m, **ME** (Vareschi 1973).

*Usnea fruticans* Motyka

Corticolous, paramo, 3250 m, **TR** (Vareschi 1973; López Figueiras 1986; Marcano 1994).

*Usnea furfurosula* (A. Zahlbr.) Motyka

Corticolous, montane forest, 1800-2500 m, **ME** (Vareschi 1973).

*Usnea hawaiiensis* Motyka

Corticolous, montane forest-paramo transition zone, 3000 m, **TA** (Vareschi 1973).

*Usnea hawaiiensis* Motyka. var. *sensitiva* Motyka

Corticolous, paramo, 3400 m, **ME** (Vareschi 1973).

*Usnea humboldtii* Motyka

Corticolous, montane forest, 1800 m, **ME** (Vareschi 1973).

*Usnea jamaicensis* Ach.

Corticolous, paramo, 3550 m, **ME** (Vareschi 1973).

*Usnea laevigata* Vain.

Corticolous, paramo, 3300-3700 m, **ME** (Vareschi 1973).

*Usnea laevis* (Eschw.) Nyl.

Saxicolous, paramo, 3500-3750 m, **ME** (Vareschi 1973; López Figueiras 1986).

*Usnea laevis* Nyl. var. *bogotensis* V. Vareschi **INED**.

Saxicolous, paramo, 3500-3600 m, **ME** (López Figueiras 1986).

*Usnea laevis* Nyl. var. *laevis* fo. *gigas* V. Vareschi **INED**.

Saxicolous, paramo, 3200 m, **TR** (López Figueiras 1986).

*Usnea laevis* Nyl. var. *glacialis* (Motyka) V. Vareschi **INED**.

Saxicolous, paramo, 3500-3600 m, **ME** (López Figueiras 1986).

*Usnea laevis* Nyl. var. *laevigata* (Motyka) V. Vareschi **INED**.

Saxicolous, paramo, 3500 m, **ME** (López Figueiras 1986).

*Usnea laevis* Nyl. var. *rocellana* (Motyka) V. Vareschi **INED**.

Saxicolous, montane forest, 2400 m, **ME** (López Figueiras 1986).

*Usnea leioclada* (A. Zahlbr.) Motyka

Corticolous, montane forest-paramo transition zone, 3190 m, **ME** (Vareschi 1973).

*Usnea lesdainii* Motyka

Corticolous, montane forest, 1350 m, **ME** (Vareschi 1973).

*Usnea mearnsii* (Vain.) Motyka

Corticolous, montane forest-paramo transition zone, 200-3140 m, **ME** (Vareschi 1973).

*Usnea meridensis* Hale **INED**?

Corticolous, montane forest, 2500 m, **ME** (López Figueiras 1986).

*Usnea meridionalis* A. Zahlbr.

Corticolous, montane forest, 2000 m, **ME** (Vareschi 1973).

*Usnea mexicana* Vain.

Corticolous, montane forest-paramo transition

zone, 3190 m, **ME** (Vareschi 1973).

*Usnea mirabilis* Motyka

Corticolous, montane forest, 2000 m, **ME** (Vareschi 1973).

*Usnea moreliana* Motyka

Corticolous, montane forest-paramo transition zone, 2000-3190 m, **ME** (Vareschi 1973).

*Usnea paradoxa* (A. Zahlbr.) Motyka

Corticolous, desertic forest, montane forest, 700-2100 m, **ME, TA** (Vareschi 1973).

*Usnea roccinella* Motyka. var. *glacialis* (A. Zahlbr.) Motyka

Saxicolous, paramo, 3200-3800 m, **ME** (Vareschi 1973).

*Usnea rubescens* Stirt.

Corticolous, sometimes terricolous, montane forest and paramo, 1800-4200 m, **ME** (Vareschi 1973).

*Usnea rubicunda* Stirt.

Corticolous, montane forest, 1800-2900 m, **ME, TR** (Vareschi 1973).

*Usnea rubicunda* Stirt. var. *insensibilis* Motyka

Corticolous, montane forest, 1700-1800 m, **ME** (Vareschi 1973).

*Usnea scaberrima* (Mont.) Motyka

Corticolous, paramo, 3000 m, **ME** (Vareschi 1973).

*Usnea setulosa* Motyka

Corticolous, paramo, 3000-3600 m, **ME** (Vareschi 1973).

*Usnea solida* Motyka

Corticolous, desertic forest, montane forest-paramo transition zone, 700-3190 m, **ME, TA** (Vareschi 1973; López Figueiras 1986).

*Usnea splendida* Motyka INED.

Corticolous, paramo, 3900 m, **ME** (Vareschi 1973).

*Usnea steineri* A. Zahlbr.

Corticolous, desertic forest, montane forest and paramo, 700-3520 m, **ME, TA** (Vareschi 1973).

*Usnea subelegans* (Vain.) Motyka

Corticolous, montane forest-paramo transition zone, 1700-3000 m, **ME** (Vareschi 1973).

*Usnea subhirta* (Vain.) Motyka

Corticolous, montane forest-paramo transition zone, 1800-3000 m, **ME** (Vareschi 1973).

*Usnea subplicata* (Vain.) Motyka

Corticolous, montane forest-paramo transition zone, 3000-3200 m, **ME** (Vareschi 1973).

*Usnea sulcata* Motyka

Corticolous, montane forest-paramo transition zone, 1800-3000 m, **ME** (Vareschi 1973).

*Usnea tenuis* Motyka

Corticolous, paramo, 3000-3600 m, **ME** (Vareschi 1973).

*Usnea transitoria* Motyka

Corticolous, montane forest and paramo, 2300-3350 m, **ME, TA** (Vareschi 1973).

\*\**Vezdaea foliicola* Sérus.

Foliicolous, montane forest, 1700 m, R. Lücking 95-134 (herb. lich. CEILT), **ME**.

\**Woessia apiahica* (Müll. Arg.) Sérus.

Foliicolous, montane forest, 1700 m, R. Lücking 95-140 (herb. lich. CEILT, herb. Lücking), **ME**.

*Xanthoparmelia alectoronica* Hale

Saxicolous, montane forest, 1100-1900 m, **LA** (López Figueiras 1986; Nash et al. 1995).

*Xanthoparmelia conspersa* (Ach.) Hale

Saxicolous, montane forest-paramo transition zone and paramo, 2900-3500 m, **ME** (Vareschi 1973, as *Parmelia*; López Figueiras 1986; Nash et al. 1995).

*Xanthoparmelia cumberlandia* (Gyeln.) Hale

Saxicolous, pre-montane forest, montane forest and paramo, 800-4400 m, **LA, ME, TR** (López Figueiras 1986; Nash et al. 1995).

*Xanthoparmelia lopezii* Nash & Elix

Saxicolous, paramo, 4100 m, **ME** (Nash et al. 1995).

*Xanthoparmelia mexicana* (Gyelnik) Hale

Saxicolous, sometimes terricolous, pre-montane forest, 915-1680 m, **LA, ME** (Nash et al. 1995).

*Xanthoparmelia microspora* (Müll. Arg.) Hale  
Saxicolous, montane forest and paramo, 2000-4200 m, **ME, TA, TR** (López Figueiras 1986; Nash et al. 1995).

*Xanthoparmelia mougeotii* (Schaer) Hale  
Saxicolous, rarely corticolous, montane forest and paramo, 1500-4200 m, **LA, ME, TR** (López Figueiras 1986; Nash et al. 1995).

*Xanthoparmelia neopropaguloides* Hale  
Saxicolous, montane forest, 1000-2500 m, **ME** (Nash et al. 1995).

*Xanthoparmelia plittii* (Gyeln.) Hale  
Saxicolous, rarely corticolous, desertic forest, pre-montane forest and montane forest, 300-2500 m, **LA, ME, TA, TR** (Vareschi 1973, as *Parmelia*; López Figueiras 1986; Nash et al. 1995).

*Xanthoparmelia sipmanii* Nash & Elix  
Saxicolous, paramo, 4100 m, **ME** (Nash et al. 1995).

*Xanthoparmelia somloënsis* (Gyelnik) Hale  
Saxicolous, paramo, 3800 m, **ME** (Nash et al. 1995).

*Xanthoparmelia standaertii* (Gyeln.) Hale  
Terricolous, paramo, 3700-3800 m, **ME** (López Figueiras 1986; Nash et al. 1995).

*Xanthoparmelia subplittii* Hale  
Saxicolous, pre-montane forest and montane forest, 915-1680 m, **LA, ME** (Nash et al. 1995).

*Xanthoparmelia subramigera* (Gyeln.) Hale  
Saxicolous, pre-montane forest and montane forest, 800-2300 m, **LA, ME, TR** (López Figueiras 1986; Nash et al. 1995).

*Xanthoparmelia subsorediata* Hale  
Saxicolous, paramo, 3000-4200 m, **ME** (Nash et al. 1995).

*Xanthoparmelia substenophylloides* Hale  
Saxicolous, pre-montane forest and montane forest, 915-2400 m, **LA, ME** (Nash et al. 1995).

*Xanthoparmelia subulcerosa* Nash & Elix  
Terricolous, montane forest, 1800 m, **ME** (Nash et

al. 1995).

*Xanthoparmelia succedans* Elix & J. Johnston  
Saxicolous, pre-montane forest, 610-1220 m, **LA, ME** (Nash et al. 1995).

*Xanthoparmelia taractica* (Kremp.) Hale  
Terricolous or saxicolous, montane forest-paramo transition zone, 2800-3100 m, **TR** (López Figueiras 1986; Nash et al. 1995).

*Xanthoparmelia tasmanica* (Hook. & Tayl.) Hale  
Saxicolous, paramo, 3200-3400 m, **ME, TR** (López Figueiras 1986; Nash et al. 1995).

*Xanthoparmelia ulcerosa* (A. Zahlbr.) Hale  
Saxicolous, montane forest and paramo, 1800-3400 m, **LA, ME, TA, TR** (López Figueiras 1986; Nash et al. 1995).

*Xanthoparmelia wildeae* (Dodge) Hale  
Saxicolous, rarely on soil, pre-montane forest, 1680 m, **ME** (Nash et al. 1995).

*Xanthoria candelaria* (L.) Th. Fr.  
Saxicolous, desertic forest and pre-montane forest, 1000-1100 m, **LA, ME** (López Figueiras 1986).

*Xanthoria elegans* (Link) Th. Fr.  
Saxicolous, paramo, 3900-4200 m, **ME** (Hertel 1971; Vareschi 1973, as *Caloplaca*; López Figueiras 1986; Marcano 1994).

#### SYNONYMS AND MISAPPLIED NAMES

*Alectoria ecuadorensis* (A. Zahlbr.) Gyelnik = *A. ochroleuca*

*Arthonia tumidula* (Ach.) Ach. = *A. cinnabarina*  
*Arthrorhaphis litina* = probable misspelling for *A. alpina*

*Baeomyces absolutus* Tuck. = *Dibaeis*

*Baeomyces erythrellus* Mont. = *Phyllobaeis*

*Baeomyces fungoides* (Sw.) Ach. = *Dibaeis*

*Baeomyces imbricatus* Hook. = *Phyllobaeis*

*Baeomyces imbricatus* Hook. var. *erythrellus* (Mont.) De Vries = *Phyllobaeis erythrellus*

*Baeomyces imbricatus* Hook. var. *linearis* De Vries = *Phyllobaeis linearis*

- Biatora russula* Mont. = *Pyrrhospora*  
*Buellia callispora* (Knight) Stein. = *Hafellia*  
*Calicium auratum* Tibell INED. = *C. chlorosporum*  
*Caloplaca elegans* (Link) Th. Fr. = *Xanthoria*  
*Catinaria versicolor* (Fée) Sipman = *Lopezaria*  
*Cetrariastrum catawbiense* (Degel.) W. Culb & C. Culb. = *Everniastrum*  
*Cetrariastrum cirrhatum* (E. Fr.) W. Culb & C. Culb. = *Everniastrum*  
*Cetrariastrum columbiense* (A. Zahlbr.) W. Culb & C. Culb. = *Everniastrum*  
*Cetrariastrum lipidiferum* (Hale & Wirth) W. Culb & C. Culb. = *Everniastrum*  
*Cetrariastrum nigrociliatum* (B. de Lesd) W. Culb & C. Culb. = *Everniastrum*  
*Cetrariastrum sorocheilum* (Vain.) W. Culb & C. Culb. = *Everniastrum*  
*Cetrariastrum vexans* A. Zahlbr. ex W. Culb & C. Culb. = *Everniastrum*  
*Chaenotheca* sp. (López Figueiras 1986) = *C. chrysocephala*  
*Chiodecton dilatatum* (Nyl.) Vain. = *Sagenidiopsis undulata*  
*Chiodecton sanguineum* (Sw.) Vain. = *Cryptothecia rubrocincta*  
*Cladonia aggregata* (Sw.) Ach. = *Cladia*  
*Cladonia anomoea* (Ach.) Ahti & P. James = *C. ramulosa*  
*Cladonia arcuata* Ahti = *Cladina*  
*Cladonia confusa* R. Sant. = *Cladina*  
*Cladonia hypoxanthoides* Auct., non Vain. = *C. meridensis*  
*Cladonia vulcanica* Zoll. = *C. didyma* var.  
*Coccocarpia parmelioides* (Hook.) Trev. = *C. erythroxyli*  
*Cora montana* (Sw.) R. Sant. = *Dictyonema glabratum*  
*Cora pavonia* L. = *Dictyonema glabratum*  
*Corella zahlbruckneri* Schiffner = *Dictyonema*  
*Everniastrum paramense* Hale & López F. = *Hypotrachyna*  
*Glossodium aversum* Nyl. = *Icmadophila*  
*Heterodermia leucomela* (L.) Poelt fo. *verrucifera* Kurok. = *H. verrucifera*  
*Hypotrachyna formosana* (A. Zahlbr.) Hale = *H. osseoalba*  
*Hypotrachyna rachista* (Hale) Hale = *H. prolongata*  
*Lecanora atra* (Huds.) Ach. = *Tephromela*  
*Lecanora polytropa* (Hoffm.) Rabh. = *Lecidea acerviformis*  
*Lecidea byssomorpha* Nyl. = *Auriculora*  
*Lecidea cinnabarina* Sommerf. = *Pyrrhospora*  
*Lecidea dicksonii* (Gmel.) Ach. = *Tremolecia atrata*  
*Lecidea crustulata* (Ach.) Sprg. = *Porpidia*  
*Lecidea durietzii* = *Lecidella carpathica*  
*Lecidea tessellata* Flk. = *Cladopycnidium sinense*  
*Lecidea uliginosa* (Schrad.) Ach. non sensu Vain. = *Placynthiella*  
*Lecidea vorticosa* (Flk.) Körb. = *Carbonea*  
*Leptogium foveolatum* Nyl. = *L. olivaceum*  
*Leptogium involuccanum* = probable misspelling for *L. moluccanum*  
*Leptogium palmatum* (Huds.) Mont. = *L. corniculatum*  
*Leptogium punctulatum* Nyl. = *L. diaphanum*  
*Megalospora versicolor* (Fée) A. Zahlbr. = *Lopezaria*  
*Ocellularia alborosella* Nyl. = *Thelotrema*  
*Ocellularia lopezii* Hale = *Thelotrema sphinctrinellum*  
*Ocellularia pachystoma* Nyl. = *Myriotrema*  
*Pachyospora verrucosa* (Ach.) Massal. = *Megaspora*  
*Parmelia austrosinensis* A. Zahlbr. = *Parmotrema*  
*Parmelia caraccensis* Tayl. = *Hypotrachyna*  
*Parmelia caroliniana* Nyl. = *Canoparmelia*  
*Parmelia cetrata* Ach. = *Rimelia*  
*Parmelia conformata* Vain. = *Parmotrema*  
*Parmelia conspersa* Ach. = *Xanthoparmelia*  
*Parmelia crinita* Ach. = *Parmotrema*  
*Parmelia crozalsiana* B. de Lesd. = *Canoparmelia*  
*Parmelia dactylifera* Vain. = *Hypotrachyna*  
*Parmelia densirhizinata* Kurok. = *Hypotrachyna*  
*Parmelia dilatata* Vain. = *Parmotrema*  
*Parmelia endosulphureum* Hill. = *Parmotrema*  
*Parmelia ensifolia* Kurok. = *Hypotrachyna*  
*Parmelia flavida* A. Zahlbr. = *Hypotrachyna*  
*Parmelia gigas* Kurok. = *Hypotrachyna*  
*Parmelia gondylophora* Hale = *Hypotrachyna*  
*Parmelia pilosa* Stitzb. = *Canomaculina*  
*Parmelia plittii* Gyeln. = *Xanthoparmelia*  
*Parmelia prolongata* Kurok. = *Hypotrachyna*  
*Parmelia reducens* Nyl. = *Hypotrachyna*  
*Parmelia reticulata* Tayl. = *Rimelia*  
*Parmelia sancti-angelii* Lynge = *Parmotrema*  
*Parmelia stictica* Nyl. = *Punctelia*

*Parmelia subrudecta* Nyl. = *Punctelia*  
*Parmelina antillensis* (Nyl.) Hale = *Parmotre-*  
*mopsis*  
*Parmelina cleefii* Sipman = *Parmelinopsis*  
*Parmelina cryptocolora* (Vain.) Hale = *Parmeli-*  
*nopsis*  
*Parmelina damaziana* (A. Zahlbr.) Hale = *Parme-*  
*linopsis*  
*Parmelina dissecta* (Nyl.) Hale = *Parmelinopsis*  
*minarum*  
*Parmelina horrescens* (Tayl.) Hale = *Parmelinop-*  
*sis*  
*Parmelina muelleri* (Vain.) Hale = *Canomaculina*  
*Parmelina pilosa* (Stizenb.) Hale = *Canomaculi-*  
*na*  
*Parmelina spumosa* (Asah.) Hale = *Parmelinop-*  
*sis*  
*Parmelina swinscowii* (Hale) Hale = *Parmelinop-*  
*sis*  
*Parmeliopsis aleurites* (DR.) Hale = *Imshaugia*  
*Parmotrema cetratum* (Ach.) Hale = *Rimelia*  
*Parmotrema conferendum* Hale = *Rimeliella*  
*Parmotrema commensuratum* (Hale) Hale = *Rime-*  
*liella*  
*Parmotrema haitiense* (Hale) Hale = *Rimeliella*  
*subtinctoria*  
*Parmotrema neotropicum* (Kurok.) Hale = *Rime-*  
*liella*  
*Parmotrema perlatum* (Huds.) Hale = *P. chinense*  
*Parmotrema reticulatum* (Tayl.) Hale = *Rimelia*  
*Parmotrema simulans* (Hale) Hale = *Rimelia*  
*Parmotrema subcristatum* (Nyl.) Hale = *P. subtinc-*  
*torium*  
*Parmotrema subsidiosum* (Müll. Arg.) Hale =  
*Rimelia*  
*Parmotrema subsumptum* (Nyl.) Hale = *Rimeliel-*  
*la*  
*Parmotrema sulfuratum* Auct. = *Rimeliella sub-*  
*tinctoria*  
*Physcia setosa* Ach. = *Phaeophyscia hispidula*  
*Pseudosagedia umbilicata* (Müll. Arg.) Hafelln.  
 & Kalb = *Porina*  
*Pseudoparmelia alabamensis* (Hale & McCul-  
 lough) Hale = *Paraparmelia*  
*Pseudoparmelia caperata* (L.) Hale = *Flavopar-*  
*melia*  
*Pseudoparmelia caribaea* (Hale) Hale = *Cano-*  
*parmelia*  
*Pseudoparmelia carneopruinata* (A. Zahlbr.) Hale  
 = *Canoparmelia*

*Pseudoparmelia caroliniana* (Nyl.) Hale = *Cano-*  
*parmelia*  
*Pseudoparmelia cinerascens* (Lyng.) Hale = *Ca-*  
*no-parmelia*  
*Pseudoparmelia crozalsiana* (B. de Lesd) Hale =  
*Canoparmelia*  
*Pseudoparmelia leucoxantha* (Müll. Arg.) Hale =  
*Flavoparmelia*  
*Pseudoparmelia rutidota* (Hook. & Tayl.) Hale =  
*Flavoparmelia*  
*Pseudoparmelia scrobicularis* (Kremp.) Hale =  
*Canoparmelia*  
*Pseudoparmelia soledians* (Nyl.) Hale = *Flavo-*  
*parmelia*  
*Pseudoparmelia texana* (Tuck.) Hale = *Canopar-*  
*melia*  
*Pyxine caesiopruinosa* (Nyl.) Imsh. = *P. albovi-*  
*rens*  
*Ramalina ecklonii* Auct., non (Spreng.) Mey. &  
 Flot. = *R. celastri*  
*Sarcogyne simplex* (Dav.) Nyl. = *Polysporina*  
*Sphaerophorus melanocarpus* (Sw.) DC. = *Buno-*  
*dophoron*  
*Sticta andina* Trev. = probable misspelling for *S.*  
*andensis*  
*Thelotrema eumorphum* Stirt. = *Ocellularia*  
*Thelotrema leucomelanum* Nyl. = *Ocellularia*  
*Trapelia torelli* (Anzi) Hertel = *Trapelia moorea-*  
*na*  
*Tylophorella polyspora* Vain. = *T. pyrenocarpoi-*  
*des*  
*Usnea sulphurea* Koen. fo. *acanthella* Lamb = *U.*  
*acanthella*

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