# ENDEMISM IN THE NORTHERN ANDES

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A mi familia por el apoyo, en especial a mi Abuela, alguien importante en mi vida...

A mis amigos y compañeros de Universidad...

A los que lo merecen, y a los que no, también...

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**RESUMEN**

TITULO ÁREAS DE ENDEMISMO DEL NORTE DE LOS ANDES*

Autores: Sergio David Bolívar Leguizamón y Daniel Rafael Miranda Esquivel**

Palabras Claves: El Norte de Los Andes, biogeografía, endemismo, criterio de optimización, Cordillera Oriental de Colombia, Complejo de Cordilleras Central-Occidental.

El Norte de Los Andes esta ubicado entre los 10° N to 5° S, y esta constituido por las tierras altas Tropicales y valles intermontanos del occidente de Venezuela, Colombia, Ecuador, y el norte de Perú. Para identificar las áreas de endemismo en el Norte de Los Andes, nosotros recolectamos un set de datos de aproximadamente 280.000 registros geográficos de cerca de 35.000 species distribuidas en el Norte de Los Andes. Nosostros usamos un criterio de optimización basado en cuadrículas, como esta implementeado en el paquete de programas NDM/VNDM, para identificar áreas de endemismo acorde a dos niveles de resolución, cuadrículas de 1° x 1° y 0.33° x 0.33°. En total fueron identificadas siete áreas de endemismo, dos de ellas no descritas previamente: La Cordillera Oriental de Colombia y El Complejo de Cordilleras Central-Occidental. Así mismo, otras áreas ya conocidas fueron identificadas: La Sierra Nevada de Santa Marta, la Serranía de Mérida, El norte de Ecuador, el sur de Ecuador, y el norte de Perú. Como conclusiones, cabe destacar la identificación de dos nuevas regiones endémicas para el Norte de Los Andes: La Cordillera Oriental de Colombia y El Complejo de Cordilleras Central-Occidental. A pesar que el set da datos usado en este análisis supera ampliamente a los usados en previos estudios, la mayoria de áreas de endemismo fueron geográficamente congruentes con previos acercamientos ecológicos y biogeográficos. Por último, las tierras altas y los bosques montanos del occidente y centro de Colombia, Ecuador, y el norte de Perú parecen ser las regiones con los más altos niveles de endemismo.

* Trabajo de Investigación.
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**ABSTRACT**

TITLE AREAS OF ENDEMISM IN THE NORTHERN ANDES*

Authors: Sergio David Bolívar Leguizamón and Daniel Rafael Miranda Esquivel**

Keywords: Northern Andes, biogeography, endemism, optimality criterion, Eastern Colombian Andes, West-Central Cordilleras Complex.

The Northern Andes is placed between 10° N to 5° S, and is constituted by the Tropical Andean highlands and intermontane valleys of western Venezuela, Colombia, Ecuador, and northern Peru. To identify the areas of endemism in the Northern Andes, we gathered a dataset of approximately 280.000 distributions of about 35.000 species distributed in the Northern Andes. We used a grid-based optimality criterion, as implemented in the software package NDM/VNDM, to identify areas of endemism according to two resolution levels, 1° x 1° and 0.33° x 0.33° grid sizes. A total of seven areas of endemism were identified, two of which are newly described: the Colombian Eastern Andes and the West-Central Cordilleras Complex, along with five areas already known: The Sierra Nevada of Santa Marta, the Serranía of Mérida, Northern Ecuador area, Southern Ecuador area, and Northern Peru area. Two new endemic regions were recognized in the Northern Andes: The Colombian Eastern Andes and West-Central Cordilleras Complex. Although the dataset assembled in this study surpassed by far those of previous studies, the majority of areas of endemism identified were geographycally congruent with previous ecological or biogeographical approaches. The highlands and montane forest in West-Central Colombia, Ecuador, and Northern Peru highlands, appeared as regions with high endemism levels.

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# INTRODUCTION

The Andean mountain system extends 5000 km along the western coast of South America. The tectonic structure of the mountain varies significantly both along and across the system (Gregory-Wodzicki, 2000). The notorius changes in the Andes topography are correlated with tectonic parameters such as orientation and dip of the subducting slab (Gansser, 1973; Jordan *et al.*, 1983; Montgomery *et al.*, 2001).

The Northern Andes is placed between 10° N to 5° S, and is constituted by the Tropical Andean highlands and intermontane valleys of western Venezuela, Colombia, Ecuador, and northern Peru (Palminteri *et al.*, 2001; Morrone and Urtubey, 1997). Dinerstein *et al.* (1995) and Palminteri *et al.* (2001) consider the highlands in the Northern Andes as a single region that possesses a diversity per unit of area maybe higher than that of the Amazonian region. Therefore, given the high diversity of the region, the World Wildlife Fund (W.W.F.) has classified the Andean region among its 25 priority ecoregions, based on the uniqueness and threatened status of its biodiversity (Palminteri *et al.*, 2001).

In addition to conservation-based research, the Andes and the North Andean ecoregion have been subject of several historical biogeographic analyses. We find studies related to the biogeographical patterns for specific taxa such as those from Darlington (1957), Rapoport (1968), Fittkau (1969), Müller (1979), Cabrera and Willink (1980), Gentry (1982), Rivas-Martínez and Tovar (1983), Duellman (1988), Henderson *et al.* (1991), Morrone and Urtubey (1997), Morrone (2001), Morrone (2002), Young *et al.* (2002), Doan (2003), and Navas (2006). Several authors like Cracraft (1985), Morrone (1994b), Quijano-Abril *et al.* (2006), and Sánchez-González *et al.* (2008) have identified patterns of endemism for certain groups in the Nor-Andean ecoregion. Other authors have identified general biogeographic relationships within the Northern Andes subregions using groups, such as Aves (Fjeldsä, 1994), plants (Borchsenius, 1997), frogs (Lynch *et al.*, 1997), and vertebrates and insects (Kattan *et al.*, 2004), while area relationships in this region have been proposed by Morrone and Urtubey (1997) and Porzecanski and Cracraft (2005), among others.

An area of endemism is an area of nonrandon distributional congruence among taxa (Platnick, 1991; Morrone, 1994a), and from an historical biogeography perspective, the recognition of such areas is considered the starting point of any analysis (Rosen, 1978; Nelson and Platnick, 1981; Myers and Giller, 1988). Several authors have developed

techniques to identify areas of endemism (Rosen, 1988; Morrone, 1994a; Linder, 2001; García-Barros *et al.*, 2002; Szumik *et al.*, 2002; Hausdorf and Hennig, 2004; Szumik and Goloboff, 2004; Deo and DeSalle, 2006; Dos Santos *et al.*, 2008). According to Carine *et al.* (In press), the optimality criterion is the most appropriate method to identify areas of endemism, because it outperforms other methods according to three criteria: presence of at least two endemic taxa, diagnosability, and geographical contiguity.

The optimality criterion of Szumik *et al.* (2002) and Szumik and Goloboff (2004) is based on the presence or absence of a species in a given grid cell within an area; the endemicity score is determined by the number of species that compose the area and species found nowhere else. The areas with the highest score(s) of endemicity are preferred. During the analysis an initial set of areas is created and then the secondary set(s) are obtained from the "swapping" of cells. Those sets that have a score as good as the original one are stored in memory for further swapping and comparisons. When a better endemicity score is obtained during the swapping, this set replaces the initial set and the process stars all over again until no further improvement in score. This is a non-hierarchical approach that allows to identify overlapping areas of endemism. The method has been implemented in the software package NDM/VNDM (Goloboff, 2006). NDM is the search engine that perfoms the analyses while the areas generated by NDM can be visualised in the VNDM software.

This optimality criterion has been used to identify areas of endemism in the Patagonian steppe (Domínguez *et al.*, 2006), Andean and Neotropical regions (De Grosso and Szumik, 2007), and Hainan Island (Chen, 2008), among others. The objective of this study is to define the areas of endemism for the North Andean ecoregion, using a complete dataset of distributional information, and performing an optimality criterion.

## METHODS

The study area is the Northern Andes Ecoregion Complex — NAEC — (Palminteri *et al.*, 2001). This region is placed in the province of the NorAndean Páramo, and the intermontane areas from adjacent provinces such as Magdalena, Cauca, among others (Morrone, 2001).

We gathered a dataset of approximately 280.000 distributions (georeferenciated records) of about 35.000 species distributed in the Northern Andes. Taxa included in the analyses represent the major groups of Animals and plants, such as Anthocerotophyta, Anura, Aves, Bryophyta, Caudata, Filicopsida, Gymnophiona, Insecta (Lepidoptera), Mammalia, Spermatopsida, Squamata, among others (see Table S1 in Supporting Information).

For vertebrate groups we used the NatureServe Organization website (www.natureserve.org). For plant records we used the Global Biodiversity Information Facility database — GBIF — (data.gbif.org). Lepidopteran distributions were obtained from Brown (Brown, 1979), Jenkins (1983, 1984, 1985a,b, 1986, 1987, 1989, 1990), and the Butterflies of Ecuador website (www.butterfliesofecuador.com).

The complete database was compiled in sheet and text files using the software OpenOffice Calc 2.4 (Sun Microsystems Inc., 2008). Also, duplicate and ambiguous records from each species were eliminated. We performed a taxonomic nomenclatural revision on certain groups, and a shapefile of this georeferenciated records were generated using the software DIVA–GIS v. 5.4.0.1 (Hijmans *et al.*, 2005). Later, the original records were transformed manually to data input files for VNDM (Goloboff, 2006) using OpenOffice Calc 2.4. The software VNDM was used to generate the binary matrices need in the endemism analysis.

We used the software NDM version 2.5 (Goloboff, 2006) to identify the areas of endemism. We used heuristic searches, default factors, and two resolution levels 1° x 1° and 0.33° x 0.33° grid sizes, recovering areas of endemism with an Endemicity Index (EI) higher to 100 and 10, respectively. Due to the high number of areas of endemism identified by NDM and their overlapping in the 1° x 1° analysis, we summarized the results by a strict consensus (50% similarity in species) to obtain general areas of endemism (see Szumik and Goloboff, 2004). The resultant areas of endemism were depicted in DIVA–GIS (Hijmans *et al.*, 2005) using the distributions of the species that supported them.

## RESULTS AND DISCUSSION

152 and eleven areas of endemism were identified in our analysis (1° x 1° and 0.33° x 0.33° resolutions, respectively). The strict consensus generated 74 areas of endemism, among them, five areas were chosen by their EI and number of species that supported them.

Thus, seven general areas of endemism are recognized in the Northern Andes (Fig. 1). Among them, the Colombian Eastern Andes and the West-Central Cordilleras Complex are two new areas of endemism on this region. The remaining five areas of endemism are congruent with some previous studies: the Sierra Nevada of Santa Marta, the Serranía of Mérida, Northern Ecuador area, Southern Ecuador area, and Northern Peru area.

### Colombian Eastern Andes

The Colombian Eastern Andes area spreads along the mountainous region from Eastern cordillera in Colombia. Three areas of endemism were defined inside this region and correspond to Páramos placed along this Colombian cordillera (Fig. 1. Areas a1 - a3). Among others, we can find the Páramo de Pisba, Páramo de La Rusia, Páramo de San Turbán, Cordillera de Hoya Negra and Santa Clara.

The Colombian Eastern Andes area is defined by 193 species from 118 genera (see Table S2 in Supporting Information). The families with the highest number of genera and endemic species are Asteraceae (19 genera and 49 species), Orchidaceae (16 genera and 25 species), Bromeliaceae (four genera and 11 species), Clusiaceae (two genera and 9 species), and Strabomantidae (two genera and eight species).

The genera with the highest species number are *Espeletia* with 16 species (Asteraceae), *Hypericum* (Clusiaceae) and *Pristimantis* (Strabomantidae) with eight and seven species each. The high number of endemic species of *Espeletia* supports the results shown in previous studies on the flora in this region (Cabrera and Willink, 1980; Rivas-Martínez and Tovar, 1983; Morrone, 2001), where the genus is considered the most important taxon of the Andean system. Likewise, the genus *Hypericum* (Clusiaceae) has been considered as a distinctive group in the Norandean Paramunan region (see Morrone, 2001).

This area of endemism has not been identified in previous analyses (e.g. Morrone, 1994b;

Morrone and Urtubey, 1997). The Colombian Eastern Andes area has been usually considered as a Paramunan component in the Northern Andes (Simpson, 1975; Müller, 1979; Dinerstein *et al.*, 1995; Morrone, 2001; Miranda-Esquivel *et al.*, 2002). In its Northernmost limit, the Táchira depression in the Venezuelan Andes seems to act as a secondary barrier that prevents the pass through the Colombian Eastern cordillera to the Venezuelan Andes (Berry, 1982). Miranda-Esquivel *et al.* (2002) identified several areas of endemism in the Paramunan region of Colombian Eastern Andes based on plants. Other previous biogeographic approaches, using Andean bird taxa, have shown the Colombian Eastern Andes area embedded into the North Andean center (Cracraft, 1985). The Colombian Eastern Andes area is partially congruent in its western zone with the Nechí endemism center and northern zone with the Catatumbo endemism center (Haffer, 1969; Brown, 1979).

Several endemic taxa of this area are considered as endangered species by The International Union for Conservation of Nature (IUCN). The species *Bolitoglossa capitana* (Plethodontidae) is critically endangered, while species categorized as endangered are *Centrolene petrophilum* (Centrolenidae), *Pristimantis renjiforum* (Strabomantidae), *Ranitomeya virolinensis* (Dendrobatidae), and *Rallus semiplumbeus* (Rallidae) (IUCN, 2008).

**West-Central Cordilleras Complex**

Four areas of endemism are identified in the west-central mountanious region in Colombia (Fig. 1). Among them, there are two extense areas of endemism placed in this region. The first area is placed in the northernmost region of the Western and Central cordilleras (Alto Sinú y San Jorge, and Biogeographic Chocó sensu Miranda *et al.* 2002) (see Fig. S1a). The second area is located between the 6° 30’ N to 2° 30’ N along the Western cordillera and part of the Central Cordillera, it covers the Cauca river valley, the Serranía of Baudó, and the low coastal valleys (see Fig. S1b). The other two areas of endemism in this region (Fig. 1. Areas b1 - b2) correspond to The Frontino and Santa Ines Páramos, the highlands in Antioquia, and the “Boca San Juan” region.

The West-Central Cordilleras Complex is supported by 429 species from 245 genera (see Table S3 in Supporting Information). The northernmost area of endemism is composed by 213 species assigned to 144 genera. Similarly, the southern area is supported by 218 species

and 136 genera.

The families with the highest number of genera and endemic species in this complex region are: Araceae (nine genera and 45 species), Melastomataceae (14 genera and 32 species), and Rubiaceae (18 genera and 39 species). The genera with the highest species number are *Anthurium* and *Philodendron* (Araceae) with 24 and 11 species respectively, and *Piper* (Piperaceae) and *Cavendishia* (Ericaceae) with 10 species each.

The Western and Central cordilleras in Colombia have a higher diversity and endemicity levels than the Eastern cordillera, while all three cordilleras are rather similar in general faunistic and vegetal composition. Some groups as bats, birds, frogs, and rodents support the distributional similarity between the lowlands (the interandean valleys) of the Western and Central cordilleras, whereas the highlands of these two cordilleras show similarity in their anuran and avian fauna (Kattan *et al.*, 2004) and some plant groups (Berry, 1982; Miranda-Esquivel *et al.*, 2002). Young *et al.* (2002) and Kattan *et al.* (2004) state that the existence of three Andean mountainous chains could be a relevant factor in the endemicity and richness in the Colombian region.

Some regions inside the West-Central Cordilleras Complex have been recognized as areas of endemism in previous analyses (Brown, 1979; Morrone, 1994b; Morrone and Urtubey, 1997; Miranda-Esquivel *et al.*, 2002; Quijano-Abril *et al.*, 2006; Sánchez-González *et al.*, 2008). The Western cordillera itself has been identified as an endemic zone by Quijano-Abril *et al.* (2006) and Sánchez-González *et al.* (2008). A Colombian central endemic area in Morrone (1994b) and Morrone and Urtubey (1997) is partially overlapped with our Colombian Eastern Andes and West-Central Cordilleras Complex areas. While, the Cauca interandean endemism center and Chocó refuge are partially included in our West-Central Cordilleras Complex (Haffer, 1969; Brown, 1979).

The Malvaceae *Hampea thespesioides* and the poison frog *Oophaga lehmanni* (Dendrobatidae) are considered critically endangered endemic taxa and they are distributed in the West-Central Cordilleras Complex (IUCN, 2008). Others endangered taxa found in the West-Central Cordilleras Complex are *Rollinia pachyantha* (Annonaceae), *Henriettella goudotiana* (Melastomataceae), *Hyloscirtus simmonsi* (Hylidae), *Rhinella macrorhina* and *Rhinella nicefori* (Bufonidae).

**Sierra Nevada of Santa Marta**

We identify an area of endemism in the north-western region of the Sierra Nevada of Santa Marta. The Sierra Nevada of Santa Marta endemism is supported by nine species and six genera, belonging to the families Formicidae (five genera and eight species), and Acanthaceae (one genus and one species) (see Table S4 in Supporting Information). The genera with the highest species number are *Pachycondyla* and *Camponotus* (Formicidae) with three and two species respectively.

The Sierra Nevada of Santa Marta has been identified as an endemism center by Brown (1979), Cracraft (1985) and Quijano-Abril *et al.* (2006).

Despite the risks of unique diversity lost and the ecological and conservation-based importance of the Sierra Nevada of Santa Marta (Palminteri *et al.*, 2001; Kattan *et al.*, 2004), the endemic species that support this area of endemism are not considered as endangered or threatened by the IUCN.

**Serranía of Mérida**

In the northern of the Serranía of Mérida we identify an area of endemism that is placed on the western mountainous regions to the Guaramacal and Dinira National Parks, between the 9° 49’ N to 9° 10’ N, and the -70° 39’ W to -69° 46’ W.

The Serranía of Mérida endemism is supported by eleven species assigned to nine genera (see Table S5 in Supporting Information). The families with the highest number of genera and endemic species are Melastomataceae with three genera and three species, and Orchidiaceae with two genera and three species. The genus with the highest species number is *Oncidium* (Orchidiaceae) with two species.

The southern and central regions of the Serranía of Mérida have been identified as areas of endemism by several authors (Cracraft, 1985; Morrone, 1994b; Morrone and Urtubey, 1997). Sánchez-González *et al.* (2008) identified the whole extent of the Serranía of Mérida as an area of endemism. This area of endemism is geographycally limited by the Venezuelan Montane and the Meridan Montane centers (Cracraft, 1985).

The species *Scytalopus fuscicauda* (Rhinocryptidae) is considered a priority species in

Conservation (IUCN, 2008).

**Northern Ecuador area**

This area is a high massif placed in Southern Colombia and Northernmost Ecuador. Three areas of endemism are defined in this region, the main area and two nested areas of endemism (Fig. 1. Areas c1 - c2). The first area of endemism spreads along the Southwest Colombia (2° 15' N) and Central Ecuador (1° 30' S). This area of endemism corresponds to the Macizo Colombiano and the two nested areas correspond to the Cotacachi-Cayapas and Cayapas-Mataje Ecological Reserves.

The endemism of this area is supported by 384 species assigned to 233 genera (see Table S6 in Supporting Information). The families with the highest number of genera and endemic species are Asteraceae (31 genera and 35 species), Nymphalidae (15 genera and 20 species), and Melastomataceae (14 genera and 25 species).

*Anthurium* (Araceae) is the richest genus in this region with 22 species. Others rich genera are *Guzmania* with eleven species (Bromeliaceae), *Piper* and *Peperomia* (Piperaceae) with ten and eight species respectively. This single area is supported by the highest number of species in our analysis (384 species). This high diversity may be due to the topographic convergence of the three Colombian mountainous chains, and the presence of the Macizo Colombiano. Berry (1982) states that this high massif has acted as a very effective migration corridor for Andean species that spread into the three different units that diverge northwards from it.

Some authors as Morrone (1994b) and Morrone and Urtubey (1997) have identified areas of endemism in Northern Ecuador. This endemic area itself has been partly identified in previous approaches using Testudines and humid montane forest birds (Ippi and Flores, 2001; Sánchez-González *et al.*, 2008). The areas of endemism proposed by Sánchez-González *et al.* (2008) support the geologic division of the Ecuadorian Andes in two structural units, the western and eastern cordilleras (Simpson, 1975; Berry, 1982). The Baeza and Chimborazo centers of endemism are placed inside the Northern Ecuador area (Brown, 1979).

The frogs *Centrolene ballux* (Centrolenidae) and *Hyloxalus delatorreae* (Dendrobatidae) are critically endangered endemic species (IUCN, 2008). Other endangered endemic species are

*Axinaea sodiroi*, *Blakea jativae* and *Blakea eriocalyx* (Melastomataceae), *Burmeistera holm-nielsenii*, *Centropogon balslevii* and *Centropogon aequatorialis* (Campanulaceae), and *Anthurium tenuifolium* (Araceae).

**Southern Ecuador area**

Two areas of endemism are identified into the Southern Ecuador area, one main area and a nested area. The main area is placed between the Central Ecuador (1° 30' S) and the Huancabamba Depresssion in Northern Peru (see Weigend, 2002). The nested area of endemism is found in the southernmost limit of Ecuador and includes the Podocarpus National Park (Fig. 1. Area d1).

This area is supported by 281 species assigned to 171 genera (see Table S7 in Supporting Information). The families with the highest number of genera and endemic species are Asteraceae (20 genera and 31 species), Poaceae (16 genera and 22 species), and Nymphalidae (nine genera and eleven species).

The genus with the highest species number is *Brachyotum* (Melastomataceae) with nine species. Other rich genera are *Ilex* (Aquifoliaceae) with seven species, *Huperzia* (Lycopodiaceae) with seven species, *Gynoxys* (Asteraceae) and *Miconia* (Melastomataceae) with six species each.

In our analyses, the Northern and Southern Ecuador areas had high endemicity levels (endemicity index values in Northern and Southern Ecuador of 241 and 209, respectively; all the other areas had values between 130 to 170). Also, among all areas identified, 85 out of 152 endemic areas recovered the Ecuadorian region as an area of endemism(1° x 1° analysis). Moreover, the northern and southern Ecuador areas had higher richness values than other regions in the Northern Andes. In an exploratory analysis, we estimated the richness in the North Andean region. The richness in the two Ecuadorian areas of endemism was the highest. These high richness levels were due to the high number of records collected in such regions. For example, despite its small geographic area, more that 150.000 records were collected from the Ecuadorian region, which accounts for 55% of the records used in this study. The nested areas of endemism found in the Cotacachi-Cayapas Ecological Reserve and near to the Podocarpus national park also had high richness values (about 8000

and 7000 species were sampled in these regions, respectively), and higher endemicity index values. Nelson et al., (1990) and Ponder et al. (2002) stated that a differential sampling effort affects the perception of centers of endemism. In this case, there was a positive correlation between species richness and endemicity in the West-Central Cordilleras Complex, the Northern, and Southern Ecuador areas. Thus, the actual high endemism levels in the Ecuadorian region could be a sampling artifact. Nevertheless, independence between endemism and richness patterns has been reported in certain groups (see Soria-Auza and Kessler, 2008).

The Southern Ecuador area is congruent with previous endemism patterns. Morrone (1994b) and Morrone and Urtubey (1997) identified two endemic areas in the Ecuadorian region, the Northern and Southern Ecuador endemic areas. Likewise, the "Western Andes of Colombia and Ecuador" and "Eastern slope of the Ecuadorian Andes" areas in Sánchez-González *et al.* (2008) comprehend our Southern Ecuador area. The southern zone, the northernmost, and the western part of the Chimborazo, the Marañon, and the Sucúa endemism centers respectively, are congruent with our area of endemism (Brown, 1979).

The species *Hyloxalus anthracinus* (Dendrobatidae) and *Puya exigua* (Bromeliaceae) are considered critically endangered species by the IUCN (2008). Other endangered taxa are *Joseanthus cuatrecasasii* (Asteraceae), *Pyrrhura orcesi* (Psittacidae), *Scytalopus robbinsi* (Rhinocryptidae), and the *Lysipomia* and *Centropogon* groups (Campanulaceae).

**Northern Peru area**

In the Southernmost region, we identified two areas of endemism, one main area and one nested area. The first area is comprised between the Huancabamba Depression to 9° S (Central Peru). The Huancabamba Depression is considered as a geographical barrier that prevents the passage of organisms through the mountainous chain.

The main region has been defined by several authors as the "transitional zone" between the Northern Andes and Central Andes (Berry, 1982; Morrone and Urtubey, 1997; Weigend, 2002). However, the barrier effect of Huancabamba Depression does not seem relevant for certain groups as some amphibians and reptils as the same species were found at both sides of the depression (Duellman, 1979). The nested area of endemism is placed between the

Cordillera Negra, the Río Marañon, and the Huayhuash cordillera (Fig. 1. Area e1).

The Northern Peru area is composed by 227 species and 138 genera (see Table S8 in Supporting Information). The families with higher number of genera and endemic species are Asteraceae (23 genera and 51 species), Poaceae (11 genera and 24 species), and Caryophyllaceae (5 genera and 8 species).

The genera with the highest species number is *Senecio* (Asteraceae) with 19 species. Other rich genera are *Deyeuxia* and *Festuca* (Poaceae) with nine and six species respectively, *Valeriana* (Valerianaceae) with seven species, and *Calceolaria* and *Bartsia* (Scrophulariaceae) with seven and six species each, respectively.

The Northern Peru area has been defined as an endemic region by some authors (Berry, 1982; Morrone, 1994b; Morrone and Urtubey, 1997; Weigend, 2002). This area of endemism is placed on The Desierto Peruano Costero province (Morrone, 2001), and has been recognized by Cabrera and Willink (1980) and Rivas-Martínez and Tovar (1983) as a dry and desertic region. This endemic area covers the western part of the Huallaga endemic center (Brown, 1979).

Some endemic species in this area are vulnerable such as *Miconia alpina* (Melastomataceae), *Kageneckia lanceolata* and *Polylepis racemosa* (Rosaceae) (IUCN, 2008).

## CONCLUSIONS

The majority of areas of endemism identified in the Northern Andes have remained fairly congruous with previous studies, even if analysed with different methods and different taxa. The highlands and montane forests appear to be regions with high and constant endemism levels along many taxa in areas such as West-Central Colombia, Ecuador, or Northern Peru highlands.

Certain areas of endemism in the Northern Andes are part of National Parks or protected areas, for example, nested areas from Northern and Southern Ecuador are located on the Cotacachi-Cayapas Ecological Reserve and the Podocarpus National Park, respectively. Also, these areas of endemism are supported by species reported as endangered/threatened by the IUCN. Thus, conservation strategies must be proposed to preserve such areas of endemism in the Northern Andes and their endangered endemic taxa not included in areas already protected.

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# FIGURES

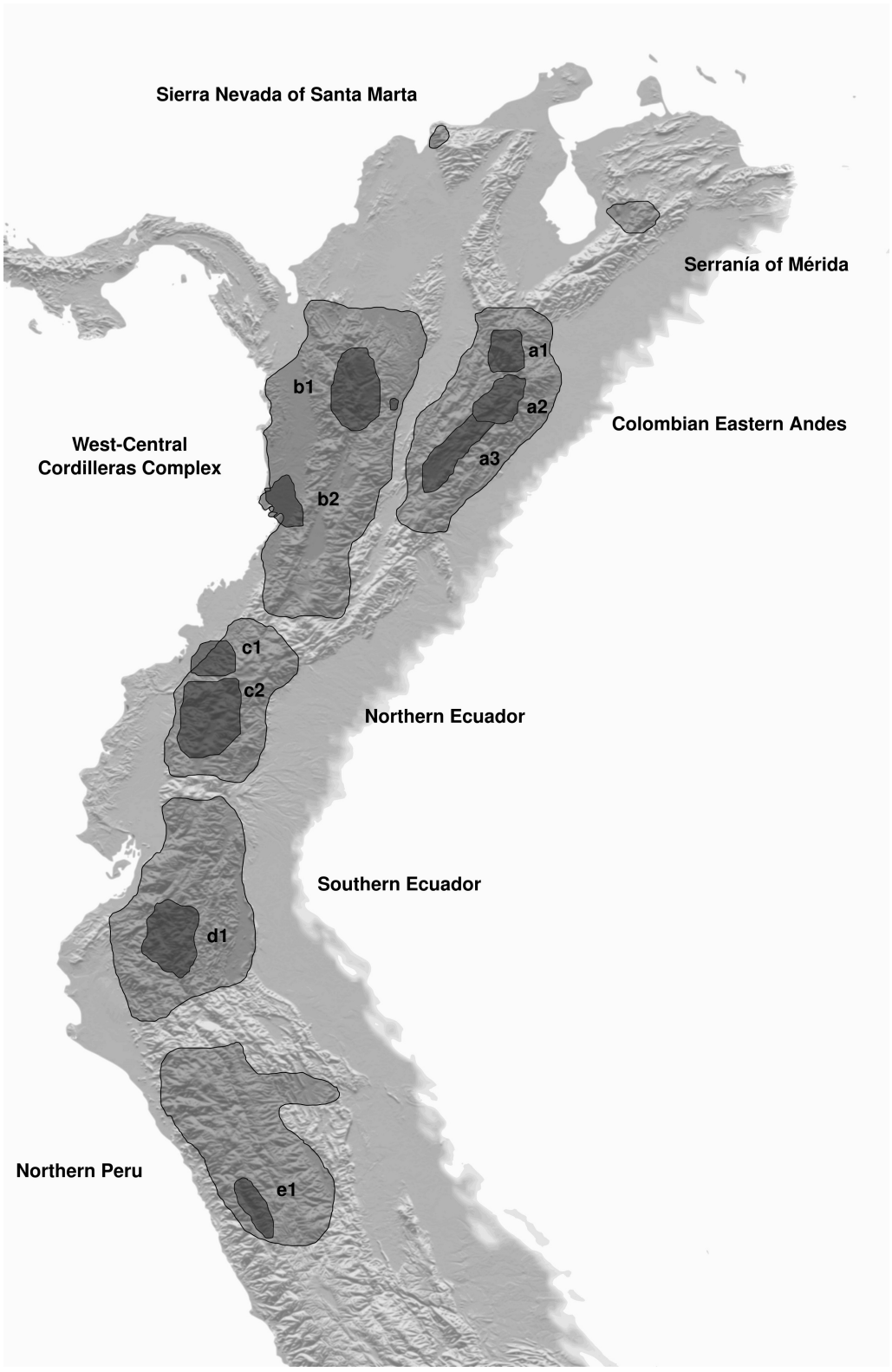
Sierra Nevada of Santa Marta
Serranía of Mérida
a1
a2
a3
b1
b2
Colombian Eastern Andes
West-Central
Cordilleras Complex
c1
c2
Northern Ecuador
Southern Ecuador
d1
Northern Peru
e1

Fig. 1. Areas of endemism identified in the Northern Andes. The areas of endemism were: Sierra Nevada of Santa Marta, Serranía of Mérida, Colombian Eastern Andes, West-Central Cordilleras Complex, Northern Ecuador, Southern Ecuador, and Northern Peru. Other areas of endemism delimited in this study were drawn in dark. These nested areas were found inside the Colombian Eastern Andes (a1 – a3), West-Central Cordilleras Complex (b1 - b2), Northern Ecuador (c1 -c2), Southern Ecuador (d1), and Northern Peru (e1).

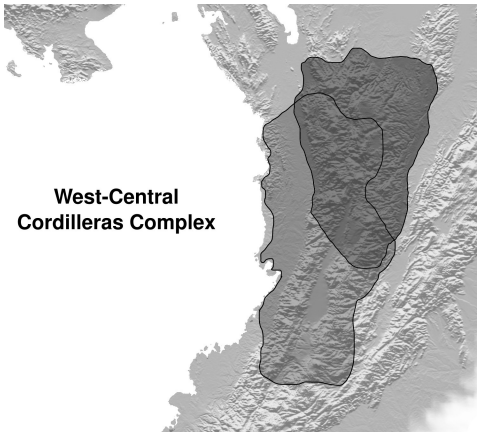


Fig. S1a. The northern area placed in the Alto Sinú y San Jorge, and Biogeographic Chocó (sensu Miranda *et al.* 2002).

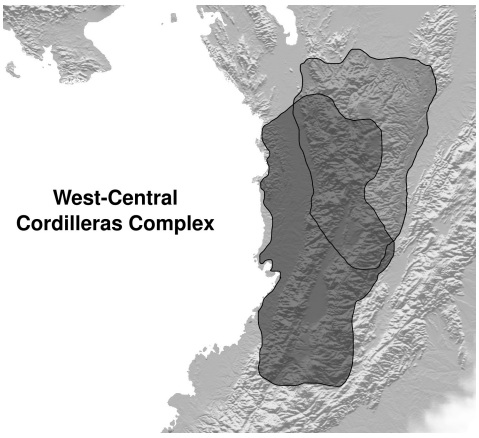


Fig. S1b. The southern area was located along the Western cordillera and part of the Central Cordillera.

## APPENDICES

### Table 1

| Domain | Order | Family |
|---|---|---|
| Animalia | Acariformes | Glycyphagidae |
| Animalia | Anseriformes | Anatidae |
| Animalia | Anseriformes | Anhimidae |
| Animalia | Anseriformes | Dendrocygnidae |
| Animalia | Anura | Amphignathodontidae |
| Animalia | Anura | Bufonidae |
| Animalia | Anura | Centrolenidae |
| Animalia | Anura | Dendrobatidae |
| Animalia | Anura | Hylidae |
| Animalia | Anura | Eleutherodactylidae |
| Animalia | Anura | Strabomantidae |
| Animalia | Anura | Microhylidae |
| Animalia | Anura | Ranidae |
| Animalia | Apodiformes | Apodidae |
| Animalia | Apodiformes | Trochilidae |
| Animalia | Araneae | Filistratidae |
| Animalia | Artiodactyla | Cervidae |
| Animalia | Artiodactyla | Tayassuidae |
| Animalia | Caprimulgiformes | Caprimulgidae |
| Animalia | Caprimulgiformes | Nyctibiidae |
| Animalia | Caprimulgiformes | Steatornithidae |
| Animalia | Carnivora | Canidae |
| Animalia | Carnivora | Felidae |
| Animalia | Carnivora | Mustelidae |
| Animalia | Carnivora | Otariidae |
| Animalia | Carnivora | Phocidae |
| Animalia | Carnivora | Procyonidae |
| Animalia | Carnivora | Ursidae |
| Animalia | Caudata | Plethodontidae |
| Animalia | Charadriiformes | Burhinidae |
| Animalia | Charadriiformes | Charadriidae |
| Animalia | Charadriiformes | Haematopodidae |
| Animalia | Charadriiformes | Jacanidae |
| Animalia | Charadriiformes | Laridae |

| | | |
|---|---|---|
| Animalia | Charadriiformes | Scolopacidae |
| Animalia | Charadriiformes | Thinocoridae |
| Animalia | Testudines | Chelidae |
| Animalia | Testudines | Kinosternidae |
| Animalia | Testudines | Testudinidae |
| Animalia | Litobiomorpha (Chilopoda) | Geophilidae |
| Animalia | Litobiomorpha (Chilopoda) | Henicopidae |
| Animalia | Chiroptera | Emballonuridae |
| Animalia | Chiroptera | Furipteridae |
| Animalia | Chiroptera | Molossidae |
| Animalia | Chiroptera | Mormoopidae |
| Animalia | Chiroptera | Natalidae |
| Animalia | Chiroptera | Noctilionidae |
| Animalia | Chiroptera | Phyllostomidae |
| Animalia | Chiroptera | Thyropteridae |
| Animalia | Chiroptera | Vespertilionidae |
| Animalia | Ciconiiformes | Ardeidae |
| Animalia | Ciconiiformes | Ciconiidae |
| Animalia | Ciconiiformes | Threskiornithidae |
| Animalia | Xenarthra (Cingulata) | Dasypodidae |
| Animalia | Coleoptera | Buprestidae |
| Animalia | Coleoptera | Carabidae |
| Animalia | Coleoptera | Staphylinidae |
| Animalia | Columbiformes | Columbidae |
| Animalia | Coraciiformes | Alcedinidae |
| Animalia | Coraciiformes | Cerylidae |
| Animalia | Coraciiformes | Momotidae |
| Animalia | Craciformes | Cracidae |
| Animalia | Crocodylia | Alligatoridae |
| Animalia | Crocodylia | Crocodylidae |
| Animalia | Cuculiformes | Coccyzidae |
| Animalia | Cuculiformes | Crotophagidae |
| Animalia | Cuculiformes | Cuculidae |
| Animalia | Cuculiformes | Neomorphidae |
| Animalia | Cuculiformes | Opisthocomidae |
| Animalia | Didelphimorphia | Caluromyidae |
| Animalia | Didelphimorphia | Didelphidae |
| Animalia | Didelphimorphia | Glironiidae |
| Animalia | Didelphimorphia | Marmosidae |
| Animalia | Falconiformes | Accipitridae |
| Animalia | Falconiformes | Cathartidae |

| | | |
|---|---|---|
| Animalia | Falconiformes | Falconidae |
| Animalia | Galliformes | Cracidae |
| Animalia | Galliformes | Odontophoridae |
| Animalia | Galliformes | Phasianidae |
| Animalia | Gruiformes (Neoaves) | Eurypygidae |
| Animalia | Gruiformes (Neoaves) | Rallidae |
| Animalia | Gymnophiona | Caeciliidae |
| Animalia | Gymnophiona | Typhlonectidae |
| Animalia | Homoptera | Aphididae |
| Animalia | Homoptera | Cicadellidae |
| Animalia | Hymenoptera | Apidae |
| Animalia | Hymenoptera | Formicidae |
| Animalia | Hymenoptera | Monomachidae |
| Animalia | Hymenoptera | Pelecinidae |
| Animalia | Hymenoptera | Scelionidae |
| Animalia | Hymenoptera | Vespidae |
| Animalia | Hymenoptera | Xiphydriidae |
| Animalia | Insectivora | Soricidae |
| Animalia | Lagomorpha | Leporidae |
| Animalia | Lepidoptera | Geometridae |
| Animalia | Lepidoptera | Nymphalidae |
| Animalia | Lepidoptera | Papilionidae |
| Animalia | Lepidoptera | Pieridae |
| Animalia | Lepidoptera | Riodinidae |
| Animalia | Odonata | Libellulidae |
| Animalia | Opisthocomiformes | Opisthocomidae |
| Animalia | Orthoptera | Acrididae |
| Animalia | Orthoptera | Gryllidae |
| Animalia | Orthoptera | Romaleidae |
| Animalia | Orthoptera | Tetrigidae |
| Animalia | Orthoptera | Tettigoniidae |
| Animalia | Parasitiformes (Gamasida, Acari) | Ascidae |
| Animalia | Parasitiformes (Gamasida, Acari) | Laelapidae |
| Animalia | Parasitiformes (Gamasida, Acari) | Macronyssidae |
| Animalia | Passeriformes | Alaudidae |
| Animalia | Passeriformes | Bombycillidae |
| Animalia | Passeriformes | Cardinalidae |
| Animalia | Passeriformes | Cinclidae |
| Animalia | Passeriformes | Coerebidae |
| Animalia | Passeriformes | Conopophagidae |
| Animalia | Passeriformes | Corvidae |

| | | |
|---|---|---|
| Animalia | Passeriformes | Cotingidae |
| Animalia | Passeriformes | Dendrocolaptidae |
| Animalia | Passeriformes | Emberizidae |
| Animalia | Passeriformes | Estrildidae |
| Animalia | Passeriformes | Formicariidae |
| Animalia | Passeriformes | Fringillidae |
| Animalia | Passeriformes | Furnariidae (Furnaridae) |
| Animalia | Passeriformes | Hirundinidae |
| Animalia | Passeriformes | Icteridae |
| Animalia | Passeriformes | Incertae Sedis (near Thraupidae) |
| Animalia | Passeriformes | Incertae_sedis_(near_Pipridae) |
| Animalia | Passeriformes | Incertae_sedis_(near_Thraupidae) |
| Animalia | Passeriformes | Mimidae |
| Animalia | Passeriformes | Motacillidae |
| Animalia | Passeriformes | Oxyruncidae |
| Animalia | Passeriformes | Parulidae |
| Animalia | Passeriformes | Passeridae |
| Animalia | Passeriformes | Phytotomidae |
| Animalia | Passeriformes | Pipridae |
| Animalia | Passeriformes | Ploceidae |
| Animalia | Passeriformes | Polioptilidae |
| Animalia | Passeriformes | Rhinocryptidae |
| Animalia | Passeriformes | Sylviidae |
| Animalia | Passeriformes | Thamnophilidae |
| Animalia | Passeriformes | Thraupidae |
| Animalia | Passeriformes | Troglodytidae |
| Animalia | Passeriformes | Turdidae |
| Animalia | Passeriformes | Tyrannidae |
| Animalia | Passeriformes | Vireonidae |
| Animalia | Paucituberculata | Caenolestidae |
| Animalia | Pelecaniformes | Anhingidae |
| Animalia | Pelecaniformes | Fregatidae |
| Animalia | Pelecaniformes | Pelecanidae |
| Animalia | Pelecaniformes | Phalacrocoracidae |
| Animalia | Perissodactyla | Tapiridae |
| Animalia | Phoenicopteriformes | Phoenicopteridae |
| Animalia | Piciformes | Bucconidae |
| Animalia | Piciformes | Capitonidae |
| Animalia | Piciformes | Galbulidae |
| Animalia | Piciformes | Picidae |
| Animalia | Piciformes | Ramphastidae |

| | | |
|---|---|---|
| Animalia | Podicipediformes | Podicipedidae |
| Animalia | Polydesmidae | Aphelidesmidae |
| Animalia | Primates | Callitrichidae |
| Animalia | Primates | Cebidae |
| Animalia | Procellariiformes | Hydrobatidae |
| Animalia | Procellariiformes | Procellaridae |
| Animalia | Psittaciformes | Psittacidae |
| Animalia | Ralliformes | Rallidae |
| Animalia | Rodentia | Agoutidae |
| Animalia | Rodentia | Caviidae |
| Animalia | Rodentia | Cuniculidae |
| Animalia | Rodentia | Dasyproctidae |
| Animalia | Rodentia | Dinomyidae |
| Animalia | Rodentia | Echimyidae |
| Animalia | Rodentia | Erethizontidae |
| Animalia | Rodentia | Heteromyidae |
| Animalia | Rodentia | Hydrochaeridae |
| Animalia | Rodentia | Muridae |
| Animalia | Rodentia | Sciuridae |
| Animalia | Rodentia | sigmodontinae |
| Animalia | Scolopendromorpha | Scolopendridae |
| Animalia | Scolopendromorpha | Scolopocryptopidae |
| Animalia | Squamata | Amphisbaenidae |
| Animalia | Squamata | Aniliidae |
| Animalia | Squamata | Boidae |
| Animalia | Squamata | Colubridae |
| Animalia | Squamata | Elapidae |
| Animalia | Squamata | Gekkonidae |
| Animalia | Squamata | Gymnophthalmidae |
| Animalia | Squamata | Hydrophiidae |
| Animalia | Squamata | Iguanidae |
| Animalia | Squamata | Lacertidae |
| Animalia | Squamata | Leptotyphlopidae |
| Animalia | Squamata | Palaeopheidae |
| Animalia | Squamata | Scincidae |
| Animalia | Squamata | Teiidae |
| Animalia | Squamata | Tropiduridae |
| Animalia | Squamata | Viperidae |
| Animalia | Strigiformes | Strigidae |
| Animalia | Tinamiformes | Tinamidae |
| Animalia | Trogoniformes | Trogonidae |

| | | |
|---|---|---|
| Animalia | Xenarthra | Bradypodidae |
| Animalia | Xenarthra | Choloepidae |
| Animalia | Xenarthra | Dasypodidae |
| Animalia | Xenarthra | Megalonychidae |
| Animalia | Xenarthra | Myrmecophagidae |
| Plantae | Agaricales | Cortinariaceae |
| Plantae | Agaricales | Tricholomataceae |
| Plantae | Alismatanae (Alismatales) | Alismataceae |
| Plantae | Alismatanae (Alismatales) | Araceae |
| Plantae | Alismatanae (Alismatales) | Butomaceae |
| Plantae | Alismatanae (Alismatales) | Hydrocharitaceae |
| Plantae | Alismatanae (Alismatales) | Lemnaceae |
| Plantae | Alismatanae (Alismatales) | Najadaceae |
| Plantae | Alismatanae (Alismatales) | Potamogetonaceae |
| Plantae | Andreaeales | Andreaeaceae |
| Plantae | Anthocerotales | Anthocerotaceae |
| Plantae | Apiales | Apiaceae |
| Plantae | Apiales | Araliaceae |
| Plantae | Aquifoliales | Aquifoliaceae |
| Plantae | Arecales (Arecaneae) | Arecaceae |
| Plantae | Asparagales | Agavaceae |
| Plantae | Asparagales | Amaryllidaceae |
| Plantae | Asparagales | Anthericaceae |
| Plantae | Asparagales | Hypoxidaceae |
| Plantae | Asparagales | Iridaceae |
| Plantae | Asparagales | Orchidaceae |
| Plantae | Asterales | Asteraceae |
| Plantae | Asterales | Campanulaceae |
| Plantae | Asterales | Goodeniaceae |
| Plantae | Asterales | Menyanthaceae |
| Plantae | Boraginales | Hydrophyllaceae |
| Plantae | Brassicales | Bataceae |
| Plantae | Brassicales | Brassicaceae |
| Plantae | Brassicales | Capparaceae |
| Plantae | Brassicales | Caricaceae |
| Plantae | Brassicales | Tovariaceae |
| Plantae | Brassicales | Tropaeolaceae |
| Plantae | Bryales (Briophyta) | Aulacomniaceae |
| Plantae | Bryales (Briophyta) | Bartramiaceae |
| Plantae | Bryales (Briophyta) | Bryaceae |
| Plantae | Bryales (Briophyta) | Mniaceae |

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| Plantae | Bryales (Briophyta) | Phyllodrepaniaceae |
| Plantae | Rhizogoniales | Racopilaceae |
| Plantae | Rhizogoniales | Rhizogoniaceae |
| Plantae | Buxales | Buxaceae |
| Plantae | Canellales | Winteraceae |
| Plantae | Caryophyllales | Achatocarpaceae |
| Plantae | Caryophyllales | Aizoaceae |
| Plantae | Caryophyllales | Amaranthaceae |
| Plantae | Caryophyllales | Basellaceae |
| Plantae | Caryophyllales | Cactaceae |
| Plantae | Caryophyllales | Caryophyllaceae |
| Plantae | Caryophyllales | Chenopodiaceae |
| Plantae | Caryophyllales | Droseraceae |
| Plantae | Caryophyllales | Molluginaceae |
| Plantae | Caryophyllales | Nyctaginaceae |
| Plantae | Caryophyllales | Phytolaccaceae |
| Plantae | Caryophyllales | Plumbaginaceae |
| Plantae | Caryophyllales | Polygonaceae |
| Plantae | Caryophyllales | Portulacaceae |
| Plantae | Celastrales | Celastraceae |
| Plantae | Celastrales | Hippocrateaceae |
| Plantae | Celastrales | Icacinaceae |
| Plantae | Celastrales | Lepidobotryaceae |
| Plantae | Celastrales | Tepuianthaceae |
| Plantae | Chloranthales | Chloranthaceae |
| Plantae | Commelinanae (Commelinales) | Commelinaceae |
| Plantae | Commelinanae (Commelinales) | Haemodoraceae |
| Plantae | Commelinanae (Commelinales) | Pontederiaceae |
| Plantae | Coniferales | Araucariaceae |
| Plantae | Coniferales | Cupressaceae |
| Plantae | Coniferales | Pinaceae |
| Plantae | Coniferales | Podocarpaceae |
| Plantae | Cornales | Cornaceae |
| Plantae | Cornales | Hydrangeaceae |
| Plantae | Cornales | Loasaceae |
| Plantae | Crossosomatales | Staphyleaceae |
| Plantae | Cucurbitales | Anisophylleaceae |
| Plantae | Cucurbitales | Begoniaceae |
| Plantae | Cucurbitales | Coriariaceae |
| Plantae | Cucurbitales | Cucurbitaceae |
| Plantae | Cycadales | Cycadaceae |

| | | |
|---|---|---|
| Plantae | Cycadales | Zamiaceae |
| Plantae | Cyperales | Cyperaceae |
| Plantae | Dicranales | Bruchiaceae |
| Plantae | Dicranales | Dicranaceae |
| Plantae | Dicranales | Ditrichaceae |
| Plantae | Dicranales | Erpodiaceae |
| Plantae | Dicranales | Eustichiaceae |
| Plantae | Dicranales | Fissidentaceae |
| Plantae | Dicranales | Leucobryaceae |
| Plantae | Dilleniales (core Eudicots) | Dilleniaceae |
| Plantae | Dioscoreales | Burmanniaceae |
| Plantae | Dioscoreales | Dioscoreaceae |
| Plantae | Dioscoreales | Taccaceae |
| Plantae | Dipsacales | Caprifoliaceae |
| Plantae | Dipsacales | Sambucaceae (Adoxaceae) |
| Plantae | Dipsacales | Valerianaceae |
| Plantae | Dryopteridales | Lomariopsidaceae |
| Plantae | Echinosteliales | Clastodermataceae |
| Plantae | Echinosteliales | Echinosteliaceae |
| Plantae | Encalyptales | Encalyptaceae |
| Plantae | Equisetales | Equisetaceae |
| Plantae | Ericales | Actinidiaceae |
| Plantae | Ericales | Balsaminaceae |
| Plantae | Ericales | Clethraceae |
| Plantae | Ericales | Cyrillaceae |
| Plantae | Ericales | Ebenaceae |
| Plantae | Ericales | Ericaceae |
| Plantae | Ericales | Lecythidaceae |
| Plantae | Ericales | Lissocarpaceae |
| Plantae | Ericales | Marcgraviaceae |
| Plantae | Ericales | Myrsinaceae |
| Plantae | Ericales | Polemoniaceae |
| Plantae | Ericales | Primulaceae |
| Plantae | Ericales | Pyrolaceae |
| Plantae | Ericales | Sapotaceae |
| Plantae | Ericales | Sarraceniaceae |
| Plantae | Ericales | Styracaceae |
| Plantae | Ericales | Symplocaceae |
| Plantae | Ericales | Theaceae |
| Plantae | Ericales | Theophrastaceae |
| Plantae | Fabales | Caesalpiniaceae |

| | | |
|---|---|---|
| Plantae | Fabales | Fabaceae |
| Plantae | Fabales | Mimosaceae |
| Plantae | Fabales | Polygalaceae |
| Plantae | Fagales | Betulaceae |
| Plantae | Fagales | Fagaceae |
| Plantae | Fagales | Juglandaceae |
| Plantae | Fagales | Myricaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Adiantaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Aspidiaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Cyatheaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Dennstaedtiaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Dryopteridaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Grammitidaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Hymenophyllaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Lomariopsidaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Lophosoriaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Loxomataceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Pteridaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Schizaeaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Tectariaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Thelypteridaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Salviniaceae |
| Plantae | Filicales (Pteridales, Pteridopsida) | Vittariaceae |
| Plantae | Funariales | Funariaceae |
| Plantae | Gentianales | Apocynaceae |
| Plantae | Gentianales | Asclepiadaceae |
| Plantae | Gentianales | Gentianaceae |
| Plantae | Gentianales | Loganiaceae |
| Plantae | Gentianales | Rubiaceae |
| Plantae | Gentianales | Strychnaceae |
| Plantae | Geraniales | Geraniaceae |
| Plantae | Gnetales | Ephedraceae |
| Plantae | Gnetales | Gnetaceae |
| Plantae | Grimmiales | Grimmiaceae |
| Plantae | Grimmiales | Ptychomitriaceae |
| Plantae | Gunnerales | Gunneraceae |
| Plantae | Hookeriales | Callicostaceae |
| Plantae | Hookeriales | Daltoniaceae |
| Plantae | Hookeriales | Hookeriaceae |
| Plantae | Hypnales | Amblystegiaceae |
| Plantae | Hypnales | Brachytheciaceae |

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|---|---|---|
| Plantae | Hypnales | Catagoniaceae |
| Plantae | Hypnales | Entodontaceae |
| Plantae | Hypnales | Fabroniaceae |
| Plantae | Hypnales | Fontinalaceae |
| Plantae | Hypnales | Hydropogonaceae |
| Plantae | Hypnales | Hylocomiaceae |
| Plantae | Hypnales | Hypnaceae |
| Plantae | Hypnales | Lembophyllaceae |
| Plantae | Hypnales | Leptodontaceae |
| Plantae | Hypnales | Leskeaceae |
| Plantae | Hypnales | Leucodontaceae |
| Plantae | Hypnales | Meteoriaceae |
| Plantae | Hypnales | Neckeraceae |
| Plantae | Hypnales | Phyllogoniaceae |
| Plantae | Hypnales | Plagiotheciaceae |
| Plantae | Hypnales | Prionodontaceae |
| Plantae | Hypnales | Pterobryaceae |
| Plantae | Hypnales | Regmatodontaceae |
| Plantae | Hypnales | Sematophyllaceae |
| Plantae | Hypnales | Stereophyllaceae |
| Plantae | Hypnales | Thuidiaceae |
| Plantae | Hypnales | Trachypodaceae |
| Plantae | Isoetales | Isoetaceae |
| Plantae | Jungermanniales | Acrobolbaceae |
| Plantae | Jungermanniales | Adelanthaceae |
| Plantae | Jungermanniales | Balantiopsaceae |
| Plantae | Jungermanniales | Cephaloziaceae |
| Plantae | Jungermanniales | Cephaloziellaceae |
| Plantae | Jungermanniales | Geocalycaceae |
| Plantae | Jungermanniales | Gymnomitriaceae |
| Plantae | Jungermanniales | Herbertaceae |
| Plantae | Jungermanniales | Jungermanniaceae |
| Plantae | Jungermanniales | Lepicoleaceae |
| Plantae | Jungermanniales | Lepidoziaceae |
| Plantae | Jungermanniales | Plagiochilaceae |
| Plantae | Jungermanniales | Plagiogyriaceae |
| Plantae | Jungermanniales | Scapaniaceae |
| Plantae | Jungermanniales | Trichocoleaceae |
| Plantae | Lamiales | Acanthaceae |
| Plantae | Lamiales | Avicenniaceae |
| Plantae | Lamiales | Bignoniaceae |

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|---|---|---|
| Plantae | Lamiales | Boraginaceae |
| Plantae | Lamiales | Buddlejaceae |
| Plantae | Lamiales | Calceolariaceae |
| Plantae | Lamiales | Callitrichaceae |
| Plantae | Lamiales | Gesneriaceae |
| Plantae | Lamiales | Lamiaceae |
| Plantae | Lamiales | Lentibulariaceae |
| Plantae | Lamiales | Martyniaceae |
| Plantae | Lamiales | Oleaceae |
| Plantae | Lamiales | Pedaliaceae |
| Plantae | Lamiales | Plantaginaceae |
| Plantae | Lamiales | Scrophulariaceae |
| Plantae | Lamiales | Verbenaceae |
| Plantae | Laurales | Hernandiaceae |
| Plantae | Laurales | Lauraceae |
| Plantae | Laurales | Monimiaceae |
| Plantae | Lecanorales | Cladoniaceae |
| Plantae | Lecanorales | Lecanoraceae |
| Plantae | Lecanorales | Parmeliaceae |
| Plantae | Lecanorales | Physaraceae |
| Plantae | Lecanorales | Physciaceae |
| Plantae | Leucodontales (Isobryales) | Cryphaeaceae |
| Plantae | Leucodontales (Isobryales) | Hedwigiaceae |
| Plantae | Leucodontales (Isobryales) | Meteoriaceae |
| Plantae | Leucodontales (Isobryales) | Prionodontaceae |
| Plantae | Leucodontales (Isobryales) | Lepyrodontaceae |
| Plantae | Leucodontales (Isobryales) | Rhacocarpaceae |
| Plantae | Liceales | Reticulariaceae |
| Plantae | Liliales | Alstroemeriaceae |
| Plantae | Liliales | Liliaceae |
| Plantae | Liliales | Melanthiaceae |
| Plantae | Liliales | Smilacaceae |
| Plantae | Lycopodiales | Lycopodiaceae |
| Plantae | Magnoliales | Annonaceae |
| Plantae | Magnoliales | Magnoliaceae |
| Plantae | Magnoliales | Myristicaceae |
| Plantae | Malpighiales | Caryocaraceae |
| Plantae | Malpighiales | Chrysobalanaceae |
| Plantae | Malpighiales | Clusiaceae |
| Plantae | Malpighiales | Dichapetalaceae |
| Plantae | Malpighiales | Elatinaceae |

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|---|---|---|
| Plantae | Malpighiales | Erythroxylaceae |
| Plantae | Malpighiales | Euphorbiaceae |
| Plantae | Malpighiales | Flacourtiaceae |
| Plantae | Malpighiales | Humiriaceae |
| Plantae | Malpighiales | Lacistemataceae |
| Plantae | Malpighiales | Linaceae |
| Plantae | Malpighiales | Malpighiaceae |
| Plantae | Malpighiales | Ochnaceae |
| Plantae | Malpighiales | Passifloraceae |
| Plantae | Malpighiales | Podostemaceae |
| Plantae | Malpighiales | Quiinaceae |
| Plantae | Malpighiales | Rafflesiaceae |
| Plantae | Malpighiales | Rhizophoraceae |
| Plantae | Malpighiales | Salicaceae |
| Plantae | Malpighiales | Trigoniaceae |
| Plantae | Malpighiales | Turneraceae |
| Plantae | Malpighiales | Violaceae |
| Plantae | Malvales | Bixaceae |
| Plantae | Malvales | Bombacaceae |
| Plantae | Malvales | Cochlospermaceae |
| Plantae | Malvales | Dipterocarpaceae |
| Plantae | Malvales | Malvaceae |
| Plantae | Malvales | Sterculiaceae |
| Plantae | Malvales | Thymelaeaceae |
| Plantae | Malvales | Tiliaceae |
| Plantae | Marattiales | Marattiaceae |
| Plantae | Marchantiales | Aytoniaceae |
| Plantae | Marchantiales | Marchantiaceae |
| Plantae | Metzgeriales | Aneuraceae |
| Plantae | Metzgeriales | Fossombroniaceae |
| Plantae | Metzgeriales | Metzgeriaceae |
| Plantae | Metzgeriales | Pallaviciniaceae |
| Plantae | Metzgeriales | Pelliaceae |
| Plantae | Monocotyledons | Zingiberaceae |
| Plantae | Myrtales | Alzateaceae |
| Plantae | Myrtales | Combretaceae |
| Plantae | Myrtales | Lythraceae |
| Plantae | Myrtales | Melastomataceae |
| Plantae | Myrtales | Myrtaceae |
| Plantae | Myrtales | Onagraceae |
| Plantae | Myrtales | Vochysiaceae |

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| Plantae | Nymphaeales | Nymphaeaceae |
| Plantae | Orthotrichales | Helicophyllaceae |
| Plantae | Orthotrichales | Ophioglossaceae |
| Plantae | Orthotrichales | Orthotrichaceae |
| Plantae | Oxalidales | Brunelliaceae |
| Plantae | Oxalidales | Connaraceae |
| Plantae | Oxalidales | Cunoniaceae |
| Plantae | Oxalidales | Elaeocarpaceae |
| Plantae | Oxalidales | Oxalidaceae |
| Plantae | Pandanales | Cyclanthaceae |
| Plantae | Pandanales | Triuridaceae |
| Plantae | Pandanales | Velloziaceae |
| Plantae | Peltigerales | Pannariaceae |
| Plantae | Pertusariales | Icmadophilaceae |
| Plantae | Pertusariales | Pertusariaceae |
| Plantae | Physarales | Didymiaceae |
| Plantae | Piperales | Aristolochiaceae |
| Plantae | Piperales | Piperaceae |
| Plantae | Pleuroziales | Pleuroziaceae |
| Plantae | Poales | Bromeliaceae |
| Plantae | Poales | Eriocaulaceae |
| Plantae | Poales | Juncaceae |
| Plantae | Poales | Juncaginaceae |
| Plantae | Poales | Mayacaceae |
| Plantae | Poales | Poaceae |
| Plantae | Poales | Rapateaceae |
| Plantae | Poales | Thurniaceae |
| Plantae | Poales | Typhaceae |
| Plantae | Poales | Xyridaceae |
| Plantae | Polyporales | Meripilaceae |
| Plantae | Polyporales | Podoscyphaceae |
| Plantae | Polytrichales | Polytrichaceae |
| Plantae | Porellales | Frullaniaceae |
| Plantae | Porellales | Jubulaceae |
| Plantae | Porellales | Lejeuneaceae |
| Plantae | Pottiales | Calymperaceae |
| Plantae | Pottiales | Ephemeraceae |
| Plantae | Pottiales | Calypogeiaceae |
| Plantae | Pottiales | Pottiaceae |
| Plantae | Pottiales | Splachnobryaceae |
| Plantae | Proteales | Proteaceae |

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|---|---|---|
| Plantae | Protosteliales | Ceratiomyxaceae |
| Plantae | Ranunculales | Berberidaceae |
| Plantae | Ranunculales | Fumariaceae |
| Plantae | Ranunculales | Menispermaceae |
| Plantae | Ranunculales | Papaveraceae |
| Plantae | Ranunculales | Ranunculaceae |
| Plantae | Rhizogoniales | Racopilaceae |
| Plantae | Rhizogoniales | Rhizogoniaceae |
| Plantae | Rodentia | sigmodontinae |
| Plantae | Rosales | Cecropiaceae |
| Plantae | Rosales | Columelliaceae |
| Plantae | Rosales | Moraceae |
| Plantae | Rosales | Rhamnaceae |
| Plantae | Rosales | Rosaceae |
| Plantae | Rosales | Ulmaceae |
| Plantae | Rosales | Urticaceae |
| Plantae | Sabiales | Sabiaceae |
| Plantae | Santanales (core eudicots) | Balanophoraceae |
| Plantae | Santanales (core eudicots) | Eremolepidaceae |
| Plantae | Santanales (core eudicots) | Loranthaceae |
| Plantae | Santanales (core eudicots) | Olacaceae |
| Plantae | Santanales (core eudicots) | Opiliaceae |
| Plantae | Santanales (core eudicots) | Santalaceae |
| Plantae | Santanales (core eudicots) | Viscaceae |
| Plantae | Sapindales | Anacardiaceae |
| Plantae | Sapindales | Burseraceae |
| Plantae | Sapindales | Hippocastanaceae |
| Plantae | Sapindales | Meliaceae |
| Plantae | Sapindales | Rutaceae |
| Plantae | Sapindales | Sapindaceae |
| Plantae | Sapindales | Simaroubaceae |
| Plantae | Saxifragales | Crassulaceae |
| Plantae | Saxifragales | Grossulariaceae |
| Plantae | Saxifragales | Haloragaceae |
| Plantae | Saxifragales | Saxifragaceae |
| Plantae | Scrophulariales (Lamiales) | Orobanchaceae |
| Plantae | Selaginellales | Selaginellaceae |
| Plantae | Seligeriales | Seligeriaceae |
| Plantae | Solanales | Convolvulaceae |
| Plantae | Solanales | Solanaceae |
| Plantae | Solanales | Sphenocleaceae |

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|---|---|---|
| Plantae | Spermatopsida | Ceratophyllaceae |
| Plantae | Sphagnales | Sphagnaceae |
| Plantae | Splachnales | Meesiaceae |
| Plantae | Splachnales | Splachnaceae |
| Plantae | Stemonitales | Stemonitidaceae |
| Plantae | Stereales | Stereaceae |
| Plantae | Teloschistales | Teloschistaceae |
| Plantae | Tetraphidales | Buxbaumiaceae |
| Plantae | Trichiales | Arcyriaceae |
| Plantae | Trichiales | Trichiaceae |
| Plantae | near Apiales or Asterids | Escalloniaceae |
| Plantae | Vitales | Vitaceae |
| Plantae | Zingiberales | Cannaceae |
| Plantae | Zingiberales | Heliconiaceae |
| Plantae | Zingiberales | Marantaceae |
| Plantae | Zingiberales | Musaceae |
| Plantae | Zingiberales | Strelitziaceae |
| Plantae | Zygophyllales | Krameriaceae |
| Plantae | Zygophyllales | Zygophyllaceae |

**Table 2**

| Order | Family | Species |
|---|---|---|
| Anura | Centrolenidae | Centrolene petrophilum |
| Anura | Centrolenidae | Cochranella adiazeta |
| Anura | Centrolenidae | Cochranella daidalea |
| Anura | Dendrobatidae | Ranitomeya virolinensis |
| Anura | Hylidae | Dendropsophus garagoensis |
| Anura | Hylidae | Dendropsophus pelidna |
| Anura | Hylidae | Dendropsophus stingi |
| Anura | Hylidae | Hyloscirtus bogotensis |
| Anura | Strabomantidae | Pristimantis bicolor |
| Anura | Strabomantidae | Pristimantis elegans |
| Anura | Strabomantidae | Pristimantis grandiceps |
| Anura | Strabomantidae | Pristimantis lynchi |
| Anura | Strabomantidae | Pristimantis miyatai |
| Anura | Strabomantidae | Pristimantis nervicus |
| Anura | Strabomantidae | Pristimantis rengiforum |
| Anura | Strabomantidae | Strabomantis ingeri |
| Apodiformes | Trochilidae | Lesbia nuna gouldii |
| Arecales (Arecaneae) | Arecaceae | Sabazia acoma |
| Asparagales | Amaryllidaceae | Bomarea holtonii |
| Asparagales | Anthericaceae | Halenia adpressa |
| Asparagales | Orchidaceae | Cranichis calva |
| Asparagales | Orchidaceae | Epidendrum maderoi |
| Asparagales | Orchidaceae | Govenia superba |
| Asparagales | Orchidaceae | Habenaria parviflora |
| Asparagales | Orchidaceae | Masdevallia coccinea |
| Asparagales | Orchidaceae | Maxillaria lawrenceana |
| Asparagales | Orchidaceae | Odontoglossum ioplocon |
| Asparagales | Orchidaceae | Odontoglossum ixioides |
| Asparagales | Orchidaceae | Odontoglossum weirii |
| Asparagales | Orchidaceae | Oliveriana ortizii |
| Asparagales | Orchidaceae | Oncidium superbiens |
| Asparagales | Orchidaceae | Pachyphyllum hispidulum |
| Asparagales | Orchidaceae | Pleurothallis gratiosa |
| Asparagales | Orchidaceae | Pleurothallis macroblepharis |
| Asparagales | Orchidaceae | Pleurothallis xenion |
| Asparagales | Orchidaceae | Restrepiopsis tubulosa |

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|---|---|---|
| Asparagales | Orchidaceae | Sarcoglottis maasorum |
| Asparagales | Orchidaceae | Stelis brevilabris |
| Asparagales | Orchidaceae | Stelis calceolaris |
| Asparagales | Orchidaceae | Stelis rhomboidea |
| Asparagales | Orchidaceae | Stelis tenuilabris |
| Asparagales | Orchidaceae | Telipogon nervosus |
| Asparagales | Orchidaceae | Trichosalpinx dura |
| Asparagales | Orchidaceae | Trichosalpinx multicuspidata |
| Asparagales | Orchidaceae | Trichosalpinx webbiae |
| Asterales | Asteraceae | Achyrocline bogotensis |
| Asterales | Asteraceae | Ageratina aristei |
| Asterales | Asteraceae | Ageratina asclepiadea |
| Asterales | Asteraceae | Ageratina gynoxoides |
| Asterales | Asteraceae | Ageratina latipes |
| Asterales | Asteraceae | Ageratina vacciniaefolia |
| Asterales | Asteraceae | Aphanactis piloselloides |
| Asterales | Asteraceae | Aristeguietia uribei |
| Asterales | Asteraceae | Baccharis barragensis |
| Asterales | Asteraceae | Baccharis boyacensis |
| Asterales | Asteraceae | Baccharis caldasiana |
| Asterales | Asteraceae | Baccharis macrantha dinamarcensis |
| Asterales | Asteraceae | Diplostephium heterophyllum |
| Asterales | Asteraceae | Espeletia argentea |
| Asterales | Asteraceae | Espeletia azucarina |
| Asterales | Asteraceae | Espeletia boyacensis |
| Asterales | Asteraceae | Espeletia boyacensis nova |
| Asterales | Asteraceae | Espeletia cabrerensis |
| Asterales | Asteraceae | Espeletia discoidea |
| Asterales | Asteraceae | Espeletia garcibarrigae |
| Asterales | Asteraceae | Espeletia grandiflora |
| Asterales | Asteraceae | Espeletia guascensis |
| Asterales | Asteraceae | Espeletia jaramilloi |
| Asterales | Asteraceae | Espeletia murilloi |
| Asterales | Asteraceae | Espeletia oswaldiana |
| Asterales | Asteraceae | Espeletia phaneractis boyacensis |
| Asterales | Asteraceae | Espeletia tunjana |
| Asterales | Asteraceae | Espeletia uribei |
| Asterales | Asteraceae | Espeletiopsis bogotensis |
| Asterales | Asteraceae | Espeletiopsis corymbosa |
| Asterales | Asteraceae | Espeletiopsis corymbosa zipaquiran |
| Asterales | Asteraceae | Fleischmannia pycnocephala |

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| Asterales | Asteraceae | Gynoxys albivestita |
| Asterales | Asteraceae | Gynoxys hirsuta |
| Asterales | Asteraceae | Gynoxys trianae |
| Asterales | Asteraceae | Mikania laurifolia |
| Asterales | Asteraceae | Monticalia carupana |
| Asterales | Asteraceae | Monticalia corymbosa |
| Asterales | Asteraceae | Monticalia ledifolia |
| Asterales | Asteraceae | Monticalia lindenii |
| Asterales | Asteraceae | Monticalia pulchella guantivana |
| Asterales | Asteraceae | Pentacalia pulchella |
| Asterales | Asteraceae | Plagiocheilus solivaeformis multiflorus |
| Asterales | Asteraceae | Senecio cocuyanus |
| Asterales | Asteraceae | Senecio folidentatus |
| Asterales | Asteraceae | Senecio garcibarrigae |
| Asterales | Asteraceae | Senecio niveo aureus |
| Asterales | Asteraceae | Siegesbeckia orientalis |
| Asterales | Asteraceae | Spilanthes cocuyensis |
| Asterales | Asteraceae | Tagetes zipaquirensis |
| Brassicales | Brassicaceae | Draba rositae minor |
| Bryales (Briophyta) | Bryaceae | Anomobryum filiformis |
| Bryales (Briophyta) | Bryaceae | Bryum ellipsifolium |
| Bryales (Briophyta) | Bryaceae | Bryum laevigatum |
| Bryales (Briophyta) | Bryaceae | Rhodobryum perspinidens |
| Caryophyllales | Caryophyllaceae | Arenaria soratensis |
| Caudata | Plethodontidae | Bolitoglossa capitana |
| Caudata | Plethodontidae | Bolitogossa adspersa |
| Chiroptera | Phyllostomidae | Platystele alucitae |
| Columbiformes | Columbidae | Columbina passerina parvula |
| Dicranales | Dicranaceae | Campylopus cleefii |
| Dicranales | Dicranaceae | Campylopus subannotinus |
| Dicranales | Dicranaceae | Kingiobryum paramicola |
| Dicranales | Dicranaceae | Metzleria longiseta |
| Dicranales | Ditrichaceae | Ditrichum heteromallum |
| Dipsacales | Valerianaceae | Valeriana triphylla |
| Ericales | Ericaceae | Bejaria congesta |
| Ericales | Ericaceae | Plutarchia guascense |
| Ericales | Ericaceae | Psammisia falcata |
| Ericales | Ericaceae | Thibaudia grantii |
| Fabales | Fabaceae | Hofmeisterella eumicroscopica |
| Fagales | Fagaceae | Trigonochilum trulla |
| Galliformes | Odontophoridae | Colinus cristatus bogotensis |

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|---|---|---|
| Gentianales | Gentianaceae | Halenia cuatrecasasii |
| Gentianales | Gentianaceae | Halenia major |
| Gymnophiona | Caeciliidae | Caecilia caribea |
| Gymnophiona | Caeciliidae | Caecilia corpulenta |
| Hymenoptera | Formicidae | Oxylobus glanduliferus |
| Hypnales | Amblystegiaceae | Drepanocladus revolvens |
| Hypnales | Amblystegiaceae | Drepanocladus sendtneri |
| Hypnales | Brachytheciaceae | Brachythecium cirriphylloides |
| Hypnales | Hypnaceae | Pseudotaxiphyllum distichaceum |
| Hypnales | Neckeraceae | Neckera lindigii |
| Hypnales | Neckeraceae | Porotrichum cobanense |
| Jungermanniales | Plagiotheciaceae | Plagiothecium novo-granatense |
| Lamiales | Acanthaceae | Telipogon andicola |
| Lamiales | Lentibulariaceae | Gentiana arbelaezii |
| Lamiales | Plantaginaceae | Plantago australis oreadis |
| Lamiales | Plantaginaceae | Plantago australis supina |
| Lamiales | Plantaginaceae | Plantago sericea argyrophylla |
| Lamiales | Scrophulariaceae | Calceolaria microbefaria microbefa |
| Lamiales | Scrophulariaceae | Castilleja integrifolia |
| Lamiales | Scrophulariaceae | Limosella australis |
| Lepidoptera | Nymphalidae | Heliconius hecuba cassandra |
| Leucodontales | Cryphaeaceae | Cryphaea fasciculata |
| Malpighiales | Clusiaceae | Hypericum gladiatum |
| Malpighiales | Clusiaceae | Hypericum goyanesii |
| Malpighiales | Clusiaceae | Hypericum humboldtianum |
| Malpighiales | Clusiaceae | Hypericum myricariifolium |
| Malpighiales | Clusiaceae | Hypericum papillosum |
| Malpighiales | Clusiaceae | Hypericum prostratum |
| Malpighiales | Clusiaceae | Hypericum selaginoides |
| Malpighiales | Clusiaceae | Hypericum thuyoides |
| Malpighiales | Clusiaceae | Lourteigia lanulata |
| Malpighiales | Malpighiaceae | Diplostephium alveolatum |
| Malvales | Malvaceae | Acaulimalva purpurea |
| Malvales | Tiliaceae | Vasquezia anemonifolia |
| Myrtales | Melastomataceae | Miconia multinervulosa |
| Myrtales | Melastomataceae | Miconia squamulosa |
| Myrtales | Melastomataceae | Monochaetum glanduliferum |
| Passeriformes | Emberizidae | Chlorospingus ophthalmicus flavopectus |
| Passeriformes | Emberizidae | Tiaris fuliginosa |
| Passeriformes | Fringillidae | Carduelis spinescens spinescens |
| Passeriformes | Icteridae | Agelaius icterocephalus bogotensis |

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|---|---|---|
| Passeriformes | Pipridae | Manacus manacus flaveolus |
| Passeriformes | Rhinocryptidae | Scytalopus griseicollis |
| Passeriformes | Thamnophilidae | Thamnophilus multistriatus multistriatus |
| Passeriformes | Troglodytidae | Troglodytes aedon columbae |
| Passeriformes | Turdidae | Turdus fuscater gigas |
| Passeriformes | Turdidae | Turdus ignobilis ignobilis |
| Passeriformes | Tyrannidae | Muscisaxicola maculirostris niceforoi |
| Paucituberculata | Caenolestidae | Caenolestes fuliginosus obscurus |
| Poales | Bromeliaceae | Aragoa cleefii |
| Poales | Bromeliaceae | Aragoa cupressina |
| Poales | Bromeliaceae | Aragoa dinamarcensis |
| Poales | Bromeliaceae | Aragoa x funzana |
| Poales | Bromeliaceae | Aragoa x jaramilloi |
| Poales | Bromeliaceae | Greigia stenolepis |
| Poales | Bromeliaceae | Puya cleefii |
| Poales | Bromeliaceae | Puya goudotiana |
| Poales | Bromeliaceae | Puya lineata |
| Poales | Bromeliaceae | Puya santosii |
| Poales | Bromeliaceae | Tillandsia suescana |
| Poales | Poaceae | Agrostis turrialbae |
| Poales | Poaceae | Festuca colombiana |
| Poales | Poaceae | Muhlenbergia cleefii |
| Poales | Poaceae | Poa trachyphylla |
| Poales | Poaceae | Poa trivialis |
| Podicipediformes | Podicipedidae | Podiceps andinus |
| Ralliformes | Rallidae | Rallus semiplumbeus |
| Rosales | Rosaceae | Lachemilla killipii |
| Rosales | Rosaceae | Polylepis quadrijuga |
| Rosales | Rosaceae | Potentilla heterosepala |
| Rosales | Rosaceae | Prunus buxifolia |
| Sphagnales | Sphagnaceae | Sphagnum capillifolium |
| Sphagnales | Sphagnaceae | Sphagnum compactum |
| Sphagnales | Sphagnaceae | Sphagnum cyclophyllum |
| Squamata | Gymnophthalmidae | Anadia bogotensis |

**Table 3**

| Order | Family | Species |
|---|---|---|
| Alismatanae (Alismatales) | Araceae | Anthurium alatum |
| Alismatanae (Alismatales) | Araceae | Anthurium angosturense |
| Alismatanae (Alismatales) | Araceae | Anthurium angustisectum |
| Alismatanae (Alismatales) | Araceae | Anthurium antioquiense |
| Alismatanae (Alismatales) | Araceae | Anthurium barbacoasense |
| Alismatanae (Alismatales) | Araceae | Anthurium caperatum |
| Alismatanae (Alismatales) | Araceae | Anthurium caucavallense |
| Alismatanae (Alismatales) | Araceae | Anthurium chlorocarpum |
| Alismatanae (Alismatales) | Araceae | Anthurium coclense |
| Alismatanae (Alismatales) | Araceae | Anthurium coleorrhiza |
| Alismatanae (Alismatales) | Araceae | Anthurium cordobense |
| Alismatanae (Alismatales) | Araceae | Anthurium crystallinum |
| Alismatanae (Alismatales) | Araceae | Anthurium cupreum |
| Alismatanae (Alismatales) | Araceae | Anthurium fragrans |
| Alismatanae (Alismatales) | Araceae | Anthurium holquinianum |
| Alismatanae (Alismatales) | Araceae | Anthurium panamense |
| Alismatanae (Alismatales) | Araceae | Anthurium pedatum |
| Alismatanae (Alismatales) | Araceae | Anthurium pluviaticum |
| Alismatanae (Alismatales) | Araceae | Anthurium popayanense |
| Alismatanae (Alismatales) | Araceae | Anthurium riparium |
| Alismatanae (Alismatales) | Araceae | Anthurium salgarense |
| Alismatanae (Alismatales) | Araceae | Anthurium splendidum |
| Alismatanae (Alismatales) | Araceae | Anthurium vallense |
| Alismatanae (Alismatales) | Araceae | Anthurium wattii |
| Alismatanae (Alismatales) | Araceae | Chlorospatha mirabilis |
| Alismatanae (Alismatales) | Araceae | Dieffenbachia antioquensis |
| Alismatanae (Alismatales) | Araceae | Monstera xanthospatha |
| Alismatanae (Alismatales) | Araceae | Philodendron bayiae |
| Alismatanae (Alismatales) | Araceae | Philodendron chrysocarpum |
| Alismatanae (Alismatales) | Araceae | Philodendron dryanderae |
| Alismatanae (Alismatales) | Araceae | Philodendron elegans |
| Alismatanae (Alismatales) | Araceae | Philodendron ensifolium |
| Alismatanae (Alismatales) | Araceae | Philodendron longipes |
| Alismatanae (Alismatales) | Araceae | Philodendron malesevichiae |
| Alismatanae (Alismatales) | Araceae | Philodendron monsalveae |
| Alismatanae (Alismatales) | Araceae | Philodendron montanum |

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|---|---|---|
| Alismatanae (Alismatales) | Araceae | Philodendron polliciforme |
| Alismatanae (Alismatales) | Araceae | Philodendron rayanum |
| Alismatanae (Alismatales) | Araceae | Spathiphyllum patinii |
| Alismatanae (Alismatales) | Araceae | Spathiphyllum quindiuense |
| Alismatanae (Alismatales) | Araceae | Stenospermation croatii |
| Alismatanae (Alismatales) | Araceae | Stenospermation monsalveae |
| Alismatanae (Alismatales) | Araceae | Stenospermation velutinum |
| Alismatanae (Alismatales) | Araceae | Syngonium chocoanum |
| Alismatanae (Alismatales) | Araceae | Xanthosoma supiaense |
| Anura | Bufonidae | Rhinella macrorhina |
| Anura | Bufonidae | Rhinella nicefori |
| Anura | Bufonidae | Rhinella ruizi |
| Anura | Bufonidae | Rhinella truebae |
| Anura | Centrolenidae | Centrolene antioquense |
| Anura | Centrolenidae | Cochranella susatamai |
| Anura | Centrolenidae | Nymphargus prasinus |
| Anura | Centrolenidae | Nymphargus rosada |
| Anura | Centrolenidae | Nymphargus ruizi |
| Anura | Dendrobatidae | Colostethus agilis |
| Anura | Dendrobatidae | Colostethus brachistriatus |
| Anura | Dendrobatidae | Colostethus dysprosium |
| Anura | Dendrobatidae | Colostethus ramirezi |
| Anura | Dendrobatidae | Colostethus thorntoni |
| Anura | Dendrobatidae | Hyloxalus abditaurantius |
| Anura | Dendrobatidae | Hyloxalus excisus |
| Anura | Dendrobatidae | Hyloxalus fascianiger |
| Anura | Dendrobatidae | Hyloxalus ramosi |
| Anura | Dendrobatidae | Oophaga lehmanni |
| Anura | Dendrobatidae | Ranitomeya ophistomelas |
| Anura | Dendrobatidae | Rheobates pseudopalmatus |
| Anura | Hylidae | Dendropsophus bogerti |
| Anura | Hylidae | Dendropsophus bogerti |
| Anura | Hylidae | Dendropsophus columbianus |
| Anura | Hylidae | Hyloscirtus simmonsi |
| Apiales | Apiaceae | Eryngium humboldtii |
| Apiales | Araliaceae | Schefflera calyptricuspidata |
| Apiales | Araliaceae | Schefflera yurumanguinis |
| Apodiformes | Trochilidae | Chlorostilbon mellisugus pumilus |
| Aquifoliales | Aquifoliaceae | Ilex danielis |
| Aquifoliales | Aquifoliaceae | Ilex flosparva |
| Arecales (Arecaneae) | Arecaceae | Aiphanes parvifolia |

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|---|---|---|
| Arecales (Arecaneae) | Arecaceae | Attalea allenii |
| Arecales (Arecaneae) | Arecaceae | Chelyocarpus dianeurus |
| Arecales (Arecaneae) | Arecaceae | Geonoma chococola |
| Arecales (Arecaneae) | Arecaceae | Geonoma gracilis |
| Arecales (Arecaneae) | Arecaceae | Orbignya cuatrecasana |
| Asparagales | Orchidaceae | Epidendrum erosum |
| Asparagales | Orchidaceae | Epidendrum lanipes |
| Asparagales | Orchidaceae | Epidendrum radicans |
| Asparagales | Orchidaceae | Maxillaria embreei |
| Asparagales | Orchidaceae | Oncidium fuscatum |
| Asparagales | Orchidaceae | Pleurothallis apoxys |
| Asparagales | Orchidaceae | Pleurothallis mundula |
| Asparagales | Orchidaceae | Pleurothallis pulvinaris |
| Asterales | Asteraceae | Calea sessiliflora |
| Asterales | Asteraceae | Critoniopsis lindenii |
| Asterales | Asteraceae | Dresslerothamnus gentryi |
| Asterales | Asteraceae | Espeletia occidentalis |
| Asterales | Asteraceae | Hebeclinium phoenicticum |
| Asterales | Asteraceae | Neomirandea sciaphila |
| Asterales | Asteraceae | Oligactis volubilis |
| Asterales | Asteraceae | Steiractinia klattii |
| Asterales | Campanulaceae | Burmeistera microphylla |
| Asterales | Campanulaceae | Centropogon glandulosus |
| Asterales | Campanulaceae | Centropogon rex |
| Asterales | Campanulaceae | Centropogon warscewiczii |
| Asterales | Campanulaceae | Centropogon yarumalensis |
| Athyriales | Blechnaceae | Blechnum schiedeanum |
| Caryophyllales | Nyctaginaceae | Guapira costaricana |
| Caudata | Plethodontidae | Bolitoglossa capitana |
| Caudata | Plethodontidae | Bolitoglossa phalarosoma |
| Caudata | Plethodontidae | Bolitoglossa vallecula |
| Caudata | Plethodontidae | Bolitoglossa walkeri |
| Chloranthales | Chloranthaceae | Hedyosmum pungens |
| Cucurbitales | Begoniaceae | Begonia microcarpa |
| Cucurbitales | Cucurbitaceae | Selysia cordata |
| Cycadales | Cycadaceae | Zamia chigua |
| Cyperales | Cyperaceae | Carex purdiei |
| Dicranales | Dicranaceae | Schliephackea meteorioides |
| Dicranales | Fissidentaceae | Fissidens cylindrothecus |
| Dilleniales | Dilleniaceae | Doliocarpus dasyanthus |
| Dilleniales | Dilleniaceae | Doliocarpus foreroi |

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|---|---|---|
| Dioscoreales | Dioscoreaceae | Dioscorea santanderensis |
| Dioscoreales | Dioscoreaceae | Dioscorea ternata |
| Dipsacales | Caprifoliaceae | Viburnum antioquiense |
| Dipsacales | Caprifoliaceae | Viburnum undulatum |
| Ericales | Actinidiaceae | Saurauia chiliantha |
| Ericales | Actinidiaceae | Saurauia putumayonis |
| Ericales | Ericaceae | Cavendishia adenophora |
| Ericales | Ericaceae | Cavendishia axillaris |
| Ericales | Ericaceae | Cavendishia capitulata |
| Ericales | Ericaceae | Cavendishia coccinea |
| Ericales | Ericaceae | Cavendishia compacta |
| Ericales | Ericaceae | Cavendishia jardinensis |
| Ericales | Ericaceae | Cavendishia macrocephala |
| Ericales | Ericaceae | Cavendishia nitida |
| Ericales | Ericaceae | Cavendishia speciosa |
| Ericales | Ericaceae | Cavendishia urophylla |
| Ericales | Ericaceae | Psammisia breviflora |
| Ericales | Ericaceae | Psammisia citrina |
| Ericales | Ericaceae | Themistoclesia mucronata |
| Ericales | Ericaceae | Thibaudia rigidiflora |
| Ericales | Lecythidaceae | Eschweilera garagarae |
| Ericales | Lecythidaceae | Eschweilera integricalyx |
| Ericales | Lecythidaceae | Eschweilera sessilis |
| Ericales | Lecythidaceae | Gustavia foliosa |
| Ericales | Marcgraviaceae | Schwartzia chocoensis |
| Ericales | Marcgraviaceae | Schwartzia diaz-piedrahitae |
| Ericales | Myrsinaceae | Ardisia cabrerae |
| Ericales | Myrsinaceae | Myrsine pellucidopunctata |
| Ericales | Symplocaceae | Symplocos mucronata |
| Ericales | Symplocaceae | Symplocos theiformis |
| Ericales | Theaceae | Camellia japonica |
| Ericales | Theaceae | Freziera arbutifolia |
| Fabales | Fabaceae | Abarema acreana |
| Fabales | Fabaceae | Abarema callejasii |
| Fabales | Fabaceae | Albizia carbonaria |
| Fabales | Fabaceae | Bauhinia kalbreyeri |
| Fabales | Fabaceae | Diptychandra colombiana |
| Fabales | Fabaceae | Inga samanensis |
| Fabales | Fabaceae | Macrolobium costaricense |
| Fabales | Fabaceae | Mimosa antioquiensis |
| Fabales | Fabaceae | Mucuna holtonii |

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|---|---|---|
| Fabales | Fabaceae | Mucuna mollis |
| Fabales | Fabaceae | Ormosia antioquensis |
| Fabales | Fabaceae | Pithecellobium barbourianum |
| Fabales | Fabaceae | Platymiscium darienense |
| Fabales | Fabaceae | Swartzia macrophylla |
| Filicales (Pteridales, Pteridopsida) | Cyatheaceae | Cyathea decorata |
| Filicales (Pteridales, Pteridopsida) | Cyatheaceae | Cyathea suprastrigosa |
| Filicales (Pteridales, Pteridopsida) | Dryopteridaceae | Elaphoglossum proliferans |
| Gentianales | Asclepiadaceae | Tassadia aristata |
| Gentianales | Gentianaceae | Lehmanniella splendens |
| Gentianales | Gentianaceae | Symbolanthus pterocalyx |
| Gentianales | Rubiaceae | Amaioua magnicarpa |
| Gentianales | Rubiaceae | Borreria ocymifolia |
| Gentianales | Rubiaceae | Chomelia microloba |
| Gentianales | Rubiaceae | Coccocypselum hispidulum |
| Gentianales | Rubiaceae | Cuatrecasasiodendron colombianum |
| Gentianales | Rubiaceae | Elaeagia asperula |
| Gentianales | Rubiaceae | Faramea ampla |
| Gentianales | Rubiaceae | Faramea calimana |
| Gentianales | Rubiaceae | Faramea calophylla |
| Gentianales | Rubiaceae | Faramea capulifolia |
| Gentianales | Rubiaceae | Faramea cyathocalyx |
| Gentianales | Rubiaceae | Faramea jefensis |
| Gentianales | Rubiaceae | Faramea oraria |
| Gentianales | Rubiaceae | Faramea parvula |
| Gentianales | Rubiaceae | Faramea suerrensis |
| Gentianales | Rubiaceae | Ferdinandusa panamensis |
| Gentianales | Rubiaceae | Gonzalagunia asperula |
| Gentianales | Rubiaceae | Gonzalagunia ovatifolia |
| Gentianales | Rubiaceae | Gonzalagunia panamensis |
| Gentianales | Rubiaceae | Gonzalagunia rosea |
| Gentianales | Rubiaceae | Guettarda tournefortiopsis |
| Gentianales | Rubiaceae | Malanea chocoana |
| Gentianales | Rubiaceae | Notopleura longissima |
| Gentianales | Rubiaceae | Palicourea danielis |
| Gentianales | Rubiaceae | Palicourea lehmannii |
| Gentianales | Rubiaceae | Palicourea quadrilateralis |
| Gentianales | Rubiaceae | Palicourea thermydri |
| Gentianales | Rubiaceae | Palicourea zarucchii |

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|---|---|---|
| Gentianales | Rubiaceae | Pentagonia magnifica |
| Gentianales | Rubiaceae | Psychotria colorata |
| Gentianales | Rubiaceae | Psychotria diguana |
| Gentianales | Rubiaceae | Psychotria glomerulata |
| Gentianales | Rubiaceae | Psychotria ovatistipula |
| Gentianales | Rubiaceae | Rondeletia colombiana |
| Gentianales | Rubiaceae | Rondeletia pubescens |
| Gentianales | Rubiaceae | Rudgea grandifructa |
| Gentianales | Rubiaceae | Rudgea trianae |
| Gentianales | Rubiaceae | Rudgea vallis |
| Gentianales | Rubiaceae | Stenosepala hirsuta |
| Gymnophiona | Caeciliidae | Caecilia caribea |
| Hookeriales | Daltoniaceae | Actinodontium integrifolium |
| Hookeriales | Hookeriaceae | Cyclodictyon subtortifolium |
| Hookeriales | Hookeriaceae | Trachyxiphium glanduliferum |
| Hymenoptera | Formicidae | Linepithema tsachila |
| Hypnales | Sematophyllaceae | Sematophyllum chlorocormum |
| Insectivora | Soricidae | Cryptotis colombiana |
| Lamiales | Acanthaceae | Aphelandra straminea |
| Lamiales | Acanthaceae | Justicia phytolaccoides |
| Lamiales | Acanthaceae | Neriacanthus lehmannianus |
| Lamiales | Bignoniaceae | Distictella chocoensis |
| Lamiales | Boraginaceae | Cordia anisophylla |
| Lamiales | Boraginaceae | Cordia barbata |
| Lamiales | Boraginaceae | Cordia rubescens |
| Lamiales | Gesneriaceae | Columnea dictyophylla |
| Lamiales | Gesneriaceae | Columnea parviflora |
| Lamiales | Gesneriaceae | Columnea rubrimarginata |
| Lamiales | Gesneriaceae | Cremosperma cotejense |
| Lamiales | Gesneriaceae | Cremosperma ignotum |
| Lamiales | Gesneriaceae | Kohleria magnifica |
| Lamiales | Gesneriaceae | Nautilocalyx bracteatus |
| Lamiales | Lamiaceae | Hyptidendron arboreum |
| Lamiales | Lamiaceae | Hyptis personata |
| Lamiales | Lamiaceae | Salvia rufula |
| Lamiales | Lentibulariaceae | Utricularia endresii |
| Lamiales | Verbenaceae | Aegiphila hirsuta |
| Lamiales | Verbenaceae | Aegiphila truncata |
| Laurales | Lauraceae | Aiouea lehmannii |
| Laurales | Lauraceae | Endlicheria xerampela |
| Laurales | Lauraceae | Ocotea aurantiodora |

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|---|---|---|
| Laurales | Monimiaceae | Mollinedia macrantha |
| Lepidoptera | Nymphalidae | Eunica evelide |
| Lepidoptera | Nymphalidae | Heliconius hecale holcophorus |
| Lepidoptera | Nymphalidae | Heliconius ismenius boulleti |
| Lepidoptera | Nymphalidae | Heliconius ismenius occidentalis |
| Lepidoptera | Nymphalidae | Hypothyris lycaste limosa |
| Lepidoptera | Nymphalidae | Melinaea lilis dodona |
| Lepidoptera | Riodinidae | Juditha Naza |
| Leucodontales | Pterobryaceae | Calyptothecium planifrons |
| Lipotyphla | Soricidae | Cryptotis thomasi medellinia |
| Magnoliales | Annonaceae | Anaxagorea allenii |
| Magnoliales | Annonaceae | Cymbopetalum oppositiflorum |
| Magnoliales | Annonaceae | Guatteria columbiana |
| Magnoliales | Annonaceae | Guatteria elegantissima |
| Magnoliales | Annonaceae | Guatteria pacifica |
| Magnoliales | Annonaceae | Pseudoxandra longipes |
| Magnoliales | Annonaceae | Pseudoxandra pacifica |
| Magnoliales | Annonaceae | Rollinia membranacea |
| Magnoliales | Annonaceae | Rollinia pachyantha |
| Magnoliales | Myristicaceae | Compsoneura cuatrecasasii |
| Magnoliales | Myristicaceae | Iryanthera megistophylla |
| Magnoliales | Myristicaceae | Iryanthera porcata |
| Malpighiales | Caryocaraceae | Anthodiscus chocoensis |
| Malpighiales | Caryocaraceae | Caryocar amygdaliferum |
| Malpighiales | Chrysobalanaceae | Licania chocoensis |
| Malpighiales | Chrysobalanaceae | Licania fuchsii |
| Malpighiales | Chrysobalanaceae | Licania gentryi |
| Malpighiales | Chrysobalanaceae | Licania velata |
| Malpighiales | Chrysobalanaceae | Licania veneralensis |
| Malpighiales | Chrysobalanaceae | Parinari chocoensis |
| Malpighiales | Clusiaceae | Clusia glomerata |
| Malpighiales | Clusiaceae | Clusia leptanthera |
| Malpighiales | Clusiaceae | Clusia sclerophylla |
| Malpighiales | Clusiaceae | Clusiella macropetala |
| Malpighiales | Clusiaceae | Garcinia intermedia |
| Malpighiales | Clusiaceae | Garcinia magnifolia |
| Malpighiales | Clusiaceae | Hypericum costaricense |
| Malpighiales | Clusiaceae | Hypericum valleanum |
| Malpighiales | Clusiaceae | Marila macrophylla |
| Malpighiales | Clusiaceae | Marila micrantha |
| Malpighiales | Clusiaceae | Marila scrobiculata |

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| Malpighiales | Clusiaceae | Vismia billbergiana |
| Malpighiales | Clusiaceae | Vismia cuatrecasasii |
| Malpighiales | Clusiaceae | Vismia laevis |
| Malpighiales | Clusiaceae | Vismia rufa |
| Malpighiales | Euphorbiaceae | Croton jorgei |
| Malpighiales | Euphorbiaceae | Drypetes percoriacea |
| Malpighiales | Euphorbiaceae | Mabea chocoensis |
| Malpighiales | Euphorbiaceae | Pera colombiana |
| Malpighiales | Euphorbiaceae | Phyllanthus symphoricarpoides |
| Malpighiales | Euphorbiaceae | Tetrorchidium gorgonae |
| Malpighiales | Humiriaceae | Humiriastrum melanocarpum |
| Malpighiales | Humiriaceae | Sacoglottis ovicarpa |
| Malpighiales | Linaceae | Roucheria monsalveae |
| Malpighiales | Malpighiaceae | Heteropterys leona |
| Malpighiales | Malpighiaceae | Pterandra colombiana |
| Malpighiales | Malpighiaceae | Pterandra ultramontana |
| Malpighiales | Malpighiaceae | Stigmaphyllon goudotii |
| Malpighiales | Malpighiaceae | Stigmaphyllon venulosum |
| Malpighiales | Passifloraceae | Passiflora chocoensis |
| Malpighiales | Passifloraceae | Passiflora engleriana |
| Malpighiales | Passifloraceae | Passiflora lyra |
| Malpighiales | Rhizophoraceae | Cassipourea killipii |
| Malpighiales | Violaceae | Gloeospermum sclerophyllum |
| Malvales | Bombacaceae | Matisia leptandra |
| Malvales | Bombacaceae | Quararibea castano |
| Malvales | Bombacaceae | Quararibea hirta |
| Malvales | Malvaceae | Hampea thespesioides |
| Malvales | Malvaceae | Hibiscus verbasciformis |
| Malvales | Malvaceae | Pavonia rhizophorae |
| Malvales | Sterculiaceae | Sterculia aerisperma |
| Malvales | Tiliaceae | Goethalsia meiantha |
| Monocotyledons | Zingiberaceae | Renealmia concinna |
| Monocotyledons | Zingiberaceae | Renealmia vallensis |
| Myrtales | Melastomataceae | Allomaieta strigosa |
| Myrtales | Melastomataceae | Blakea argentea |
| Myrtales | Melastomataceae | Blakea nodosa |
| Myrtales | Melastomataceae | Blakea platypoda |
| Myrtales | Melastomataceae | Blakea quadrangularis |
| Myrtales | Melastomataceae | Bucquetia glutinosa |
| Myrtales | Melastomataceae | Castratella piloselloides |
| Myrtales | Melastomataceae | Clidemia killipii |

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|---|---|---|
| Myrtales | Melastomataceae | Graffenrieda anomala |
| Myrtales | Melastomataceae | Graffenrieda grandifolia |
| Myrtales | Melastomataceae | Henriettella goudotiana |
| Myrtales | Melastomataceae | Henriettella maguirei |
| Myrtales | Melastomataceae | Henriettella seemannii |
| Myrtales | Melastomataceae | Leandra cuatrecasasii |
| Myrtales | Melastomataceae | Leandra mexicana |
| Myrtales | Melastomataceae | Miconia acanthocoryne |
| Myrtales | Melastomataceae | Miconia acuminifera |
| Myrtales | Melastomataceae | Miconia centronioides |
| Myrtales | Melastomataceae | Miconia macrotis |
| Myrtales | Melastomataceae | Miconia megalantha |
| Myrtales | Melastomataceae | Miconia piperifolia |
| Myrtales | Melastomataceae | Miconia psychrophila |
| Myrtales | Melastomataceae | Miconia subsessilifolia |
| Myrtales | Melastomataceae | Monochaetum multiflorum |
| Myrtales | Melastomataceae | Monolena cordifolia |
| Myrtales | Melastomataceae | Monolena pilosiuscula |
| Myrtales | Melastomataceae | Tessmannianthus calcaratus |
| Myrtales | Melastomataceae | Topobea alternifolia |
| Myrtales | Melastomataceae | Topobea castanedae |
| Myrtales | Melastomataceae | Topobea glabrescens |
| Myrtales | Melastomataceae | Topobea reducta |
| Myrtales | Melastomataceae | Topobea watsonii |
| Myrtales | Onagraceae | Fuchsia hirtella |
| Myrtales | Vochysiaceae | Vochysia pinkusii |
| Oxalidales | Brunelliaceae | Brunellia antioquensis |
| Oxalidales | Brunelliaceae | Brunellia subsessilis |
| Oxalidales | Brunelliaceae | Brunellia trianae |
| Pandanales | Cyclanthaceae | Sphaeradenia buenaventurae |
| Pandanales | Cyclanthaceae | Sphaeradenia silvestris |
| Pandanales | Cyclanthaceae | Sphaeradenia stenosperma |
| Passeriformes | Cotingidae | Pyroderus scutatus occidentalis |
| Passeriformes | Emberizidae | Saltator maximus iungens |
| Passeriformes | Formicariidae | Sipia berlepschi |
| Passeriformes | Hirundinidae | Stelgidopteryx ruficollis uropygialis |
| Passeriformes | Parulidae | Coereba flaveola caucae |
| Passeriformes | Parulidae | Parvicaecilia pricei |
| Passeriformes | Pipridae | Manacus manacus viridiventris |
| Passeriformes | Pipridae | Manacus vitellinus viridiventris |
| Passeriformes | Pipridae | Masius chrysopterus bellus |

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|---|---|---|
| Passeriformes | Thamnophilidae | Cercomacra nigricans atratus |
| Passeriformes | Thamnophilidae | Thamnophilus multistriatus brachyurus |
| Passeriformes | Thraupidae | Bangsia melanochlamys |
| Passeriformes | Thraupidae | Pipraeidea melanonota |
| Passeriformes | Thraupidae | Piranga flava desidiosa |
| Passeriformes | Thraupidae | Ramphocelus flammigerus flammigerus |
| Passeriformes | Tyrannidae | Colostethus borjai |
| Passeriformes | Tyrannidae | Conopias cinchoneti icterophrys |
| Passeriformes | Tyrannidae | Contopus sordidulus sordidulus |
| Passeriformes | Tyrannidae | Pogonotriccus lanyoni |
| Passeriformes | Vireonidae | Vireo olivaceus caucae |
| Piciformes | Picidae | Melanerpes pulcher |
| Piperales | Piperaceae | Peperomia falanana |
| Piperales | Piperaceae | Piper aguadulcense |
| Piperales | Piperaceae | Piper antioquiense |
| Piperales | Piperaceae | Piper artanthe |
| Piperales | Piperaceae | Piper brisasense |
| Piperales | Piperaceae | Piper cisnerosense |
| Piperales | Piperaceae | Piper griseolimbum |
| Piperales | Piperaceae | Piper hartwegianum |
| Piperales | Piperaceae | Piper haughtii |
| Piperales | Piperaceae | Piper novo-granatense |
| Piperales | Piperaceae | Piper praesagium |
| Poales | Bromeliaceae | Aechmea germinyana |
| Poales | Bromeliaceae | Aragoa occidentalis occidentali |
| Poales | Bromeliaceae | Guzmania obtusiloba |
| Poales | Bromeliaceae | Guzmania triangularis |
| Poales | Bromeliaceae | Pitcairnia alversonii |
| Poales | Bromeliaceae | Pitcairnia semaphora |
| Poales | Bromeliaceae | Puya ochroleuca |
| Poales | Eriocaulaceae | Paepalanthus dendroides |
| Poales | Poaceae | Chusquea antioquensis |
| Poales | Poaceae | Chusquea londoniae |
| Pottiales | Pottiaceae | Weissia jamaicensis |
| Proteales | Proteaceae | Panopsis yolombo |
| Proteales | Proteaceae | Roupala nitida |
| Psittaciformes | Psittacidae | Forpus conspicillatus caucae |
| Ranunculales | Menispermaceae | Abuta antioquiana |
| Rodentia | Muridae | Thomasomys gracilis |

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|---|---|---|
| Rosales | Cecropiaceae | Coussapoa valaria |
| Rosales | Moraceae | Ficus francoae |
| Rosales | Moraceae | Ficus osensis |
| Rosales | Rhamnaceae | Rhamnus goudotiana |
| Rosales | Urticaceae | Pilea seemannii |
| Santanales (core eudicots) | Loranthaceae | Ixocactus gracilis |
| Santanales (core eudicots) | Loranthaceae | Ixocactus hutchisonii |
| Santanales (core eudicots) | Loranthaceae | Ixocactus rhynchophyllus |
| Santanales (core eudicots) | Loranthaceae | Psittacanthus gigas |
| Santanales (core eudicots) | Viscaceae | Phoradendron triflorum |
| Sapindales | Burseraceae | Bursera tomentosa |
| Sapindales | Burseraceae | Protium buenaventurense |
| Sapindales | Burseraceae | Protium glomerulosum |
| Sapindales | Burseraceae | Protium nervosum |
| Sapindales | Meliaceae | Guarea macropetala |
| Sapindales | Simaroubaceae | Picramnia gracilis |
| Solanales | Solanaceae | Schultesianthus coriaceus |
| Solanales | Solanaceae | Solandra coriacea |
| Solanales | Solanaceae | Solanum dolichosepalum |
| Solanales | Solanaceae | Solanum erianthum |
| Solanales | Solanaceae | Solanum microleprodes |
| Solanales | Solanaceae | Solanum unifoliatum |
| Squamata | Boidae | Epicrionops parkeri |
| Squamata | Iguanidae | Anolis notopholis |
| Zingiberales | Heliconiaceae | Heliconia atratensis |
| Zingiberales | Marantaceae | Calathea colombiana |
| Zingiberales | Marantaceae | Calathea idroboi |
| Zingiberales | Musaceae | Musa velutina |

**Table 4**

| Order | Family | Species |
|---|---|---|
| Hymenoptera | Formicidae | Camponotus bugnioni |
| Hymenoptera | Formicidae | Camponotus curviscapus |
| Hymenoptera | Formicidae | Gnamptogenys minuta |
| Hymenoptera | Formicidae | Nesomyrmex echinatinodis |
| Hymenoptera | Formicidae | Pachycondyla aenescens |
| Hymenoptera | Formicidae | Pachycondyla constricta |
| Hymenoptera | Formicidae | Pachycondyla harpax |
| Hymenoptera | Formicidae | Pyramica zeteki |
| Lamiales | Acanthaceae | Mendoncia speciosa |

**Table 5**

| Order | Family | Species |
|---|---|---|
| Asparagales | Orchidaceae | Maxillaria ruberrima |
| Asparagales | Orchidaceae | Oncidium falcipetalum |
| Asparagales | Orchidaceae | Oncidium zebrinum |
| Gentianales | Asclepiadaceae | Matelea aymardii |
| Malpighiales | Euphorbiaceae | Croizatia brevipetiolata |
| Myrtales | Melastomataceae | Anaectocalyx bracteosa |
| Myrtales | Melastomataceae | Axinaea costaricensis |
| Myrtales | Melastomataceae | Miconia lucida |
| Passeriformes | Rhinocryptidae | Scytalopus fuscicauda |
| Sapindales | Rutaceae | Conchocarpus larensis |

**Table 6**

| Order | Family | Species |
|---|---|---|
| Alismatanae (Alismatales) | Araceae | Anthurium anchicayense |
| Alismatanae (Alismatales) | Araceae | Anthurium dolichophyllum |
| Alismatanae (Alismatales) | Araceae | Anthurium draconopterum |
| Alismatanae (Alismatales) | Araceae | Anthurium gracilistipum |
| Alismatanae (Alismatales) | Araceae | Anthurium holmnielsenii |
| Alismatanae (Alismatales) | Araceae | Anthurium jaramilloi |
| Alismatanae (Alismatales) | Araceae | Anthurium jimenae |
| Alismatanae (Alismatales) | Araceae | Anthurium longicaudatum |
| Alismatanae (Alismatales) | Araceae | Anthurium maculosum |
| Alismatanae (Alismatales) | Araceae | Anthurium malacophyllum |
| Alismatanae (Alismatales) | Araceae | Anthurium melampyi |
| Alismatanae (Alismatales) | Araceae | Anthurium nanegalense |
| Alismatanae (Alismatales) | Araceae | Anthurium oreophilum |
| Alismatanae (Alismatales) | Araceae | Anthurium pallatangense |
| Alismatanae (Alismatales) | Araceae | Anthurium paucinerve |
| Alismatanae (Alismatales) | Araceae | Anthurium pendulispadix |
| Alismatanae (Alismatales) | Araceae | Anthurium ricaurtense |
| Alismatanae (Alismatales) | Araceae | Anthurium rimbachii |
| Alismatanae (Alismatales) | Araceae | Anthurium rivulare |
| Alismatanae (Alismatales) | Araceae | Anthurium rodrigueziae |
| Alismatanae (Alismatales) | Araceae | Anthurium suborbiculare |
| Alismatanae (Alismatales) | Araceae | Anthurium sytsmae |
| Alismatanae (Alismatales) | Araceae | Anthurium tenuifolium |
| Alismatanae (Alismatales) | Araceae | Anthurium terracolum |
| Alismatanae (Alismatales) | Araceae | Chlorospatha dodsonii |
| Alismatanae (Alismatales) | Araceae | Chlorospatha lehmannii |
| Alismatanae (Alismatales) | Araceae | Chlorospatha nambiensis |
| Alismatanae (Alismatales) | Araceae | Dieffenbachia daguensis |
| Alismatanae (Alismatales) | Araceae | Philodendron fibrosum |
| Alismatanae (Alismatales) | Araceae | Philodendron heleniae heleniae |
| Alismatanae (Alismatales) | Araceae | Philodendron lentii |
| Alismatanae (Alismatales) | Araceae | Philodendron musifolium |
| Alismatanae (Alismatales) | Araceae | Philodendron narinoense |
| Alismatanae (Alismatales) | Araceae | Philodendron obscurinervium |
| Alismatanae (Alismatales) | Araceae | Philodendron rodrigueziae |
| Alismatanae (Alismatales) | Araceae | Philodendron tysonii |

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|---|---|---|
| Alismatanae (Alismatales) | Araceae | Rhodospatha dodsonii |
| Alismatanae (Alismatales) | Araceae | Stenospermation gracile |
| Alismatanae (Alismatales) | Araceae | Stenospermation longifolium |
| Alismatanae (Alismatales) | Araceae | Syngonium crassifolium |
| Anura | Amphignathodontidae | Gastrotheca espeletia |
| Anura | Centrolenidae | Centrolene ballux |
| Anura | Centrolenidae | Centrolene litorale |
| Anura | Centrolenidae | Centrolene scirtetes |
| Anura | Centrolenidae | Cochranella ocellifera |
| Anura | Dendrobatidae | Hyloxalus awa |
| Anura | Dendrobatidae | Hyloxalus delatorrae |
| Anura | Hylidae | Dendropsophus carnifex |
| Anura | Strabomantidae | Pristimantis apiculatus |
| Anura | Strabomantidae | Pristimantis hectus |
| Apiales | Apiaceae | Ottoa oenanthoides |
| Apiales | Araliaceae | Oreopanax argentatus |
| Apiales | Araliaceae | Oreopanax grandifolius |
| Apiales | Araliaceae | Oreopanax seemannianum |
| Apiales | Araliaceae | Schefflera lasiogyne |
| Apiales | Araliaceae | Schefflera sodiroi |
| Apodiformes | Trochilidae | Aglaiocercus coelestis coelestis |
| Arecales (Arecaneae) | Arecaceae | Aiphanes chiribogensis |
| Arecales (Arecaneae) | Arecaceae | Aiphanes erinacea |
| Arecales (Arecaneae) | Arecaceae | Arenga westerhautii |
| Arecales (Arecaneae) | Arecaceae | Chamaedorea deneversiana |
| Arecales (Arecaneae) | Arecaceae | Geonoma linearis |
| Arecales (Arecaneae) | Arecaceae | Wettinia oxycarpa |
| Arecales (Arecaneae) | Arecaceae | Wettinia verruculosa |
| Artiodactyla | Tayassuidae | Tayassu pecari aequatoris |
| Asparagales | Amaryllidaceae | Phaedranassa dubia |
| Asparagales | Iridaceae | Sisyrinchium iridifolium |
| Asparagales | Orchidaceae | Dracula sodiroi |
| Asparagales | Orchidaceae | Elleanthus gastroglottis |
| Asparagales | Orchidaceae | Elleanthus scopula |
| Asparagales | Orchidaceae | Epidendrum goodspeedianum |
| Asparagales | Orchidaceae | Epidendrum lindae |
| Asparagales | Orchidaceae | Epidendrum macroophorum |
| Asparagales | Orchidaceae | Epidendrum tunguraguae |
| Asparagales | Orchidaceae | Masdevallia pardina |
| Asparagales | Orchidaceae | Odontoglossum cirrhosum |
| Asparagales | Orchidaceae | Pleurothallis flaveola |

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|---|---|---|
| Asparagales | Orchidaceae | Rodriguezia lehmannii |
| Asparagales | Orchidaceae | Trichosalpinx microcharis |
| Asterales | Asteraceae | Achyrocline hallii |
| Asterales | Asteraceae | Aequatorium jamesonii |
| Asterales | Asteraceae | Aetheolaena patens |
| Asterales | Asteraceae | Ageratina parviceps |
| Asterales | Asteraceae | Ayapanopsis cuchabensis |
| Asterales | Asteraceae | Baccharis padifolia |
| Asterales | Asteraceae | Badilloa salicina |
| Asterales | Asteraceae | Chuquiraga insignis |
| Asterales | Asteraceae | Clibadium harlingii |
| Asterales | Asteraceae | Dasyphyllum popayanense |
| Asterales | Asteraceae | Dendrophorbium lloense |
| Asterales | Asteraceae | Espeletia pycnophylla |
| Asterales | Asteraceae | Eupatorium pseudochilca |
| Asterales | Asteraceae | Garcibarrigoa telembina |
| Asterales | Asteraceae | Haplopappus hypoleucus |
| Asterales | Asteraceae | Hypochaeris echegarayi |
| Asterales | Asteraceae | Jalcophila ecuadorensis |
| Asterales | Asteraceae | Lasiocephalus sodiroi |
| Asterales | Asteraceae | Liabum sagittatum |
| Asterales | Asteraceae | Liabum saloyense |
| Asterales | Asteraceae | Liabum stipulatum |
| Asterales | Asteraceae | Loricaria antisanensis |
| Asterales | Asteraceae | Mikania iodotricha |
| Asterales | Asteraceae | Monticalia andicola |
| Asterales | Asteraceae | Monticalia stuebelii |
| Asterales | Asteraceae | Mutisia sodiroi |
| Asterales | Asteraceae | Oligactis pichinchensis |
| Asterales | Asteraceae | Pentacalia campii |
| Asterales | Asteraceae | Senecio lloensis |
| Asterales | Asteraceae | Senecio tipocochensis |
| Asterales | Asteraceae | Sigesbeckia cordifolia |
| Asterales | Asteraceae | Steiractinia rosei |
| Asterales | Asteraceae | Verbesina rivetii |
| Asterales | Asteraceae | Werneria crassa |
| Asterales | Asteraceae | Werneria graminifolia |
| Asterales | Asteraceae | Xenophyllum crassum |
| Asterales | Campanulaceae | Burmeistera ceratocarpa |
| Asterales | Campanulaceae | Burmeistera holm-nielsenii |
| Asterales | Campanulaceae | Burmeistera lutosa |

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|---|---|---|
| Asterales | Campanulaceae | Burmeistera vulgaris |
| Asterales | Campanulaceae | Centropogon aequatorialis |
| Asterales | Campanulaceae | Centropogon balslevii |
| Asterales | Campanulaceae | Centropogon dissectus |
| Asterales | Campanulaceae | Centropogon glabrifilis |
| Asterales | Campanulaceae | Centropogon llanganatensis |
| Asterales | Campanulaceae | Centropogon nigricans |
| Asterales | Campanulaceae | Centropogon sodiroanus |
| Asterales | Campanulaceae | Siphocampylus ecuadoriensis |
| Athyriales | Woodsiaceae | Diplazium costale |
| Brassicales | Caricaceae | Carica pulchra |
| Bryales (Briophyta) | Bartramiaceae | Breutelia incana |
| Carnivora | Canidae | Pseudalopex culpaeus reissii |
| Carnivora | Mustelidae | Lontra longicaudis |
| Carnivora | Procyonidae | Potos flavus modestus |
| Cornales | Loasaceae | Mentzelia fendleriana |
| Cucurbitales | Begoniaceae | Begonia sodiroi |
| Cyathales | Cyatheaceae | Cnemidaria quitensis |
| Ericales | Ericaceae | Cavendishia grandifolia |
| Ericales | Ericaceae | Ceratostema peruvianum |
| Ericales | Ericaceae | Disterigma rimbachii |
| Ericales | Ericaceae | Killipiella stereophylla |
| Ericales | Ericaceae | Macleania bullata |
| Ericales | Ericaceae | Psammisia columbiensis |
| Ericales | Ericaceae | Psammisia debilis |
| Ericales | Ericaceae | Psammisia sodiroi |
| Ericales | Ericaceae | Sphyrospermum boekei |
| Ericales | Ericaceae | Sphyrospermum campanulatum |
| Ericales | Ericaceae | Sphyrospermum grandifolium |
| Ericales | Ericaceae | Thibaudia andrei |
| Ericales | Lecythidaceae | Grias colombiana |
| Ericales | Lecythidaceae | Gustavia dodsonii |
| Ericales | Primulaceae | Anagallis minima |
| Ericales | Symplocaceae | Symplocos fimbriata |
| Fabales | Fabaceae | Brownea multijuga |
| Fabales | Fabaceae | Mora megistosperma |
| Fabales | Fabaceae | Otholobium caliginis |
| Fabales | Polygalaceae | Monnina patula |
| Fabales | Polygalaceae | Monnina phillyreoides |
| Fabales | Polygalaceae | Monnina reticulata |
| Fabales | Polygalaceae | Monnina tenuifolia |

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|---|---|---|
| Filicales (Pteridopsida) | Dryopteridaceae | Lastreopsis exculta |
| Filicales (Pteridopsida) | Dryopteridaceae | Polybotrya suberecta |
| Filicales (Pteridopsida) | Dryopteridaceae | Polystichum muricatum |
| Filicales (Pteridopsida) | Grammitidaceae | Grammitis assurgens |
| Filicales (Pteridopsida) | Grammitidaceae | Grammitis lanigera |
| Filicales (Pteridopsida) | Schizaeaceae | Lygodium radiatum |
| Gentianales | Gentianaceae | Gentianella nummulariifolia |
| Gentianales | Loganiaceae | Desfontainia pulchra |
| Gentianales | Rubiaceae | Faramea calyptrata |
| Gentianales | Rubiaceae | Hoffmannia latifolia |
| Gentianales | Rubiaceae | Ladenbergia pavonii |
| Gentianales | Rubiaceae | Leptostigma pilosum |
| Gentianales | Rubiaceae | Palicourea awa |
| Gentianales | Rubiaceae | Palicourea gibbosa |
| Gentianales | Rubiaceae | Palicourea glandulifera |
| Gentianales | Rubiaceae | Palicourea holmgrenii |
| Gentianales | Rubiaceae | Palicourea sodiroi |
| Gentianales | Rubiaceae | Pentagonia brachyotis |
| Gentianales | Rubiaceae | Psychotria dives |
| Gentianales | Rubiaceae | Rondeletia perezii |
| Gentianales | Rubiaceae | Sabicea thyrsiflora |
| Geraniales | Geraniaceae | Geranium angelense |
| Geraniales | Geraniaceae | Geranium laxicaule |
| Hypnales | Amblystegiaceae | Campylium praegracile |
| Hypnales | Amblystegiaceae | Warnstorfia fluitans |
| Hypnales | Brachytheciaceae | Rhynchostegium riparioides |
| Hypnales | Hypnaceae | Mittenothamnium jamesonii |
| Hypnales | Meteoriaceae | Barbella tenuissima |
| Jungermanniales | Lejeuneaceae | Ceratolejeunea maritima |
| Jungermanniales | Plagiochilaceae | Plagiochila notha |
| Lamiales | Bignoniaceae | Exarata chocoensis |
| Lamiales | Gesneriaceae | Alloplectus purpureus |
| Lamiales | Gesneriaceae | Columnea densibracteata |
| Lamiales | Gesneriaceae | Columnea dissimilis |
| Lamiales | Gesneriaceae | Columnea mastersonii |
| Lamiales | Gesneriaceae | Drymonia brochidodroma |
| Lamiales | Gesneriaceae | Gasteranthus columbianus |
| Lamiales | Gesneriaceae | Gasteranthus glaber |
| Lamiales | Gesneriaceae | Gasteranthus leopardus |
| Lamiales | Gesneriaceae | Gasteranthus quitensis |
| Lamiales | Scrophulariaceae | Calceolaria colombiana |

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|---|---|---|
| Lamiales | Scrophulariaceae | Calceolaria lehmanniana |
| Lamiales | Scrophulariaceae | Calceolaria pedunculata |
| Lamiales | Scrophulariaceae | Calceolaria penlandii |
| Lamiales | Scrophulariaceae | Schlegelia sulfurea |
| Lamiales | Verbenaceae | Aloysia aloysioides |
| Laurales | Lauraceae | Ocotea stenoneura |
| Laurales | Monimiaceae | Siparuna apicifera |
| Laurales | Monimiaceae | Siparuna palenquensis |
| Laurales | Monimiaceae | Siparuna piloso-lepidota |
| Lepidoptera | Nymphalidae | Actinote alcione elatus |
| Lepidoptera | Nymphalidae | Adelpha corcyra collina |
| Lepidoptera | Nymphalidae | Adelpha ethelda ethelda |
| Lepidoptera | Nymphalidae | Adelpha justina justina |
| Lepidoptera | Nymphalidae | Adelpha rothschildi |
| Lepidoptera | Nymphalidae | Adelpha zina zina |
| Lepidoptera | Nymphalidae | Archaeoprepona amphimachus amphiktion |
| Lepidoptera | Nymphalidae | Archaeoprepona demophon muson |
| Lepidoptera | Nymphalidae | Caligo illioneus praxsiodus |
| Lepidoptera | Nymphalidae | Caligo memnon bellerophon |
| Lepidoptera | Nymphalidae | Castilia eranites |
| Lepidoptera | Nymphalidae | Cithaerias pireta |
| Lepidoptera | Nymphalidae | Diaethria anna nystographa |
| Lepidoptera | Nymphalidae | Dione juno juno |
| Lepidoptera | Nymphalidae | Dulcedo polita |
| Lepidoptera | Nymphalidae | Eresia clara reducta |
| Lepidoptera | Nymphalidae | Euptychia westwoodi |
| Lepidoptera | Nymphalidae | Heliconius hecale australis |
| Lepidoptera | Nymphalidae | Mechanitis polymnia chimborazona |
| Lepidoptera | Nymphalidae | Napeogenes cranto sp.nov |
| Lepidoptera | Nymphalidae | Olyras crathis weeksi |
| Lepidoptera | Papilionidae | Heraclides thoas neacles |
| Lepidoptera | Pieridae | Dismorphia amphiona discrepans |
| Lepidoptera | Pieridae | Dismorphia lelex valeria |
| Lepidoptera | Pieridae | Dismorphia medora miriam |
| Lepidoptera | Pieridae | Dismorphia zathoe othoe |
| Lycopodiales | Lycopodiaceae | Huperzia cumingii |
| Magnoliales | Myristicaceae | Otoba gordoniaefolia |
| Malpighiales | Chrysobalanaceae | Licania grandibracteata |
| Malpighiales | Clusiaceae | Clusia tetragona |
| Malpighiales | Euphorbiaceae | Alchornea sodiroi |

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| Malpighiales | Euphorbiaceae | Croton wagneri |
| Malpighiales | Euphorbiaceae | Phyllanthus lathyroides |
| Malpighiales | Euphorbiaceae | Plukenetia lehmanniana |
| Malpighiales | Passifloraceae | Passiflora chelidonea |
| Malpighiales | Passifloraceae | Passiflora discophora |
| Malpighiales | Violaceae | Gloeospermum grandifolium |
| Malvales | Bombacaceae | Matisia bolivarii |
| Malvales | Bombacaceae | Pachira patinoi |
| Malvales | Malvaceae | Gaya endacantha |
| Malvales | Malvaceae | Wercklea intermedia |
| Malvales | Sterculiaceae | Herrania balaensis |
| Malvales | Sterculiaceae | Theobroma gileri |
| Metzgeriales | Metzgeriaceae | Metzgeria albinea |
| Metzgeriales | Pallaviciniaceae | Jensenia erythropus |
| Monocotyledons | Zingiberaceae | Renealmia aurantifera |
| Monocotyledons | Zingiberaceae | Renealmia sessilifolia |
| Myrtales | Melastomataceae | Aciotis levyana |
| Myrtales | Melastomataceae | Axinaea affinis |
| Myrtales | Melastomataceae | Axinaea sodiroi |
| Myrtales | Melastomataceae | Blakea eriocalyx |
| Myrtales | Melastomataceae | Blakea jativae |
| Myrtales | Melastomataceae | Blakea punctulata |
| Myrtales | Melastomataceae | Centradeniastrum album |
| Myrtales | Melastomataceae | Clidemia garcia-barrigae |
| Myrtales | Melastomataceae | Clidemia purpurea |
| Myrtales | Melastomataceae | Conostegia cuatrecasasii |
| Myrtales | Melastomataceae | Huilaea ecuadorensis |
| Myrtales | Melastomataceae | Killipia quadrangularis |
| Myrtales | Melastomataceae | Meriania maxima |
| Myrtales | Melastomataceae | Miconia auritinoda |
| Myrtales | Melastomataceae | Miconia dapsiliflora |
| Myrtales | Melastomataceae | Miconia hymenanthera |
| Myrtales | Melastomataceae | Miconia ochracea |
| Myrtales | Melastomataceae | Miconia orescia |
| Myrtales | Melastomataceae | Miconia renneri |
| Myrtales | Melastomataceae | Miconia rivetii |
| Myrtales | Melastomataceae | Monochaetum pauciflorum |
| Myrtales | Melastomataceae | Ossaea asplundii |
| Myrtales | Melastomataceae | Ossaea palenquensis |
| Myrtales | Melastomataceae | Tibouchina gleasoniana |
| Myrtales | Melastomataceae | Tibouchina pendula |

| | | |
|---|---|---|
| Myrtales | Melastomataceae | Triolena pedemontana |
| Myrtales | Onagraceae | Fuchsia corollata |
| Myrtales | Onagraceae | Fuchsia dependens |
| Myrtales | Onagraceae | Fuchsia polyantha |
| Orthotrichales | Orthotrichaceae | Macromitrium trichophyllum |
| Oxalidales | Brunelliaceae | Brunellia acostae |
| Oxalidales | Cunoniaceae | Weinmannia cinerea |
| Oxalidales | Oxalidaceae | Oxalis filiformis |
| Pandanales | Cyclanthaceae | Asplundia fagerlindii |
| Pandanales | Cyclanthaceae | Asplundia stenophylla |
| Pandanales | Cyclanthaceae | Dianthoveus cremnophilus |
| Pandanales | Cyclanthaceae | Sphaeradenia hamata |
| Passeriformes | Emberizidae | Atlapetes leucopterus leucopterus |
| Passeriformes | Emberizidae | Catamenia homochroa homochroa |
| Passeriformes | Emberizidae | Chlorospingus flavigularis marginatus |
| Passeriformes | Emberizidae | Tangara rufigula |
| Passeriformes | Incertae Sedis (n. Thraupidae) | Chlorospingus flavovirens |
| Passeriformes | Pipridae | Masius chrysopterus coronulatus |
| Passeriformes | Thraupidae | Ramphocelus icteronotus |
| Passeriformes | Thraupidae | Tangara gyrola nupera |
| Passeriformes | Thraupidae | Tangara parzudakii lunigera |
| Passeriformes | Troglodytidae | Cistothorus platensis aequatorialis |
| Passeriformes | Tyrannidae | Elaenia pallatangae pallatangae |
| Passeriformes | Tyrannidae | Myiarchus tuberculifer nigriceps |
| Piciformes | Bucconidae | Malacoptila panamensis pacifica |
| Piciformes | Ramphastidae | Selenidera spectabilis |
| Piperales | Piperaceae | Peperomia armadana |
| Piperales | Piperaceae | Peperomia cacaophila |
| Piperales | Piperaceae | Peperomia crispa |
| Piperales | Piperaceae | Peperomia manabina |
| Piperales | Piperaceae | Peperomia miqueliana |
| Piperales | Piperaceae | Peperomia pyramidata |
| Piperales | Piperaceae | Peperomia stelechophila |
| Piperales | Piperaceae | Peperomia swartziana |
| Piperales | Piperaceae | Piper bullosum |
| Piperales | Piperaceae | Piper dichroostachyum |
| Piperales | Piperaceae | Piper lagunaense |
| Piperales | Piperaceae | Piper nudibracteatum |
| Piperales | Piperaceae | Piper pseudonobile |
| Piperales | Piperaceae | Piper rugulosum |

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|---|---|---|
| Piperales | Piperaceae | Piper subulatum |
| Piperales | Piperaceae | Piper tenuilimbum |
| Piperales | Piperaceae | Piper trianae |
| Piperales | Piperaceae | Piper veneralense |
| Poales | Bromeliaceae | Aechmea aciculosa |
| Poales | Bromeliaceae | Guzmania alborosea |
| Poales | Bromeliaceae | Guzmania amplectens |
| Poales | Bromeliaceae | Guzmania andreana |
| Poales | Bromeliaceae | Guzmania bakeri |
| Poales | Bromeliaceae | Guzmania fosteriana |
| Poales | Bromeliaceae | Guzmania harlingii |
| Poales | Bromeliaceae | Guzmania hirtzii |
| Poales | Bromeliaceae | Guzmania pseudospectabilis |
| Poales | Bromeliaceae | Guzmania regalis |
| Poales | Bromeliaceae | Guzmania testudinis |
| Poales | Bromeliaceae | Guzmania teuscheri |
| Poales | Bromeliaceae | Pitcairnia brongniartiana |
| Poales | Bromeliaceae | Pitcairnia fusca |
| Poales | Bromeliaceae | Puya gigas |
| Poales | Bromeliaceae | Racinaea elegans |
| Poales | Bromeliaceae | Tillandsia cornuta |
| Poales | Bromeliaceae | Tillandsia polyantha |
| Poales | Bromeliaceae | Tillandsia superba |
| Poales | Bromeliaceae | Werauhia paupera |
| Poales | Bromeliaceae | Werauhia viridiflora |
| Poales | Juncaceae | Juncus liebmannii |
| Poales | Poaceae | Anthericum eccremorrhizum |
| Poales | Poaceae | Calamagrostis guamanensis |
| Poales | Poaceae | Chusquea maclurei |
| Polipodiales | Aspleniaceae | Asplenium rosenstockianum |
| Polypodiales | Grammitidaceae | Grammitis intricata |
| Polypodiales | Grammitidaceae | Grammitis jamesonioides |
| Polypodiales | Grammitidaceae | Grammitis subscabra |
| Polypodiales | Grammitidaceae | Terpsichore reclinatoides |
| Polypodiales | Polypodiaceae | Pleopeltis wiesbaurii |
| Polypodiales | Polypodiaceae | Polypodium nanegalense |
| Polypodiales | Polypodiaceae | Polypodium phyllitidis |
| Pottiales | Pottiaceae | Barbula rectifolia |
| Pottiales | Pottiaceae | Didymodon vinealis |
| Pottiales | Pottiaceae | Pseudocrossidium granulosum |
| Ranunculales | Berberidaceae | Berberis hallii |

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|---|---|---|
| Rosales | Moraceae | Ficus carchiana |
| Rosales | Moraceae | Ficus petenensis |
| Rosales | Moraceae | Ficus rieberiana |
| Rosales | Moraceae | Naucleopsis chiguila |
| Rosales | Moraceae | Sorocea sarcocarpa |
| Rosales | Rosaceae | Polylepis pauta |
| Rosales | Urticaceae | Pilea ophioderma |
| Santanales | Viscaceae | Dendrophthora tenuifolia |
| Sapindales | Meliaceae | Carapa megistocarpa |
| Sapindales | Meliaceae | Ruagea tomentosa |
| Sapindales | Meliaceae | Ruagea trisperma |
| Solanales | Solanaceae | Brugmansia versicolor |
| Solanales | Solanaceae | Lycianthes nitida |
| Solanales | Solanaceae | Markea pilosa |
| Solanales | Solanaceae | Solanum aspero-lanatum |
| Solanales | Solanaceae | Solanum longevirgatum |
| Solanales | Solanaceae | Solanum siphonobasis |
| Solanales | Solanaceae | Solanum suffrutescens |
| Tinamiformes | Tinamidae | Crypturellus berlepschi |
| Zingiberales | Marantaceae | Calathea multicincta |
| Zingiberales | Musaceae | Heliconia fragilis |
| Zingiberales | Musaceae | Heliconia griggsiana |

**Table 7**

| Order | Family | Species |
|---|---|---|
| Alismatanae (Alismatales) | Araceae | Anthurium grex-avium |
| Anura | Dendrobatidae | Hyloxalus anthracinus |
| Anura | Ranidae | Lithobates bwana |
| Apiales | Apiaceae | Hydrocotyle yanghuangensis |
| Apiales | Araliaceae | Oreopanax andreanus |
| Apiales | Araliaceae | Oreopanax sessiliflorus |
| Apiales | Araliaceae | Oreopanax trifidus |
| Apiales | Araliaceae | Schefflera harmsii |
| Apodiformes | Trochilidae | Heliangelus micraster |
| Apodiformes | Trochilidae | Urosticte benjamini |
| Aquifoliales | Aquifoliaceae | Ilex amboroica |
| Aquifoliales | Aquifoliaceae | Ilex ericoides |
| Aquifoliales | Aquifoliaceae | Ilex hualgayoca |
| Aquifoliales | Aquifoliaceae | Ilex rupicola |
| Aquifoliales | Aquifoliaceae | Ilex scopulorum |
| Aquifoliales | Aquifoliaceae | Ilex teratopis |
| Aquifoliales | Aquifoliaceae | Ilex weberlingii |
| Arecales (Arecaneae) | Arecaceae | Aiphanes verrucosa |
| Asparagales | Amaryllidaceae | Eucrosia stricklandii |
| Asparagales | Iridaceae | Sisyrinchium caespitificum |
| Asparagales | Orchidaceae | Epidendrum blepharoclinium |
| Asparagales | Orchidaceae | Epidendrum carpophorum |
| Asparagales | Orchidaceae | Epidendrum lacustre |
| Asparagales | Orchidaceae | Malaxis hoppii |
| Asparagales | Orchidaceae | Masdevallia macropus |
| Asparagales | Orchidaceae | Masdevallia parvula |
| Asparagales | Orchidaceae | Odontoglossum myanthum |
| Asparagales | Orchidaceae | Pachyphyllum falcifolium |
| Asparagales | Orchidaceae | Pleurothallis neoharlingii |
| Asparagales | Orchidaceae | Pleurothallis nephroglossa |
| Asparagales | Orchidaceae | Pleurothallis vestigipetala |
| Asparagales | Orchidaceae | Prescottia lojana |
| Asparagales | Orchidaceae | Sobralia fimbriata |
| Asterales | Asteraceae | Achyrocline candicans |
| Asterales | Asteraceae | Ageratina cutervensis |
| Asterales | Asteraceae | Ageratina dendroides |

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|---|---|---|
| Asterales | Asteraceae | Ageratina fastigiata |
| Asterales | Asteraceae | Baccharis alaternoides |
| Asterales | Asteraceae | Baccharis volubilis |
| Asterales | Asteraceae | Barnadesia aculeata |
| Asterales | Asteraceae | Cacosmia hieronymi |
| Asterales | Asteraceae | Chrysanthemum parthenium |
| Asterales | Asteraceae | Coreopsis capillacea |
| Asterales | Asteraceae | Diplostephium espinosae |
| Asterales | Asteraceae | Ericentrodea davidsmithii |
| Asterales | Asteraceae | Eupatorium exserto-venosum |
| Asterales | Asteraceae | Eupatorium exsertovenosum |
| Asterales | Asteraceae | Guevaria sodiroi |
| Asterales | Asteraceae | Gynoxys azuayensis |
| Asterales | Asteraceae | Gynoxys cuicochensis |
| Asterales | Asteraceae | Gynoxys laurifolia |
| Asterales | Asteraceae | Gynoxys miniphylla |
| Asterales | Asteraceae | Gynoxys reinaldii |
| Asterales | Asteraceae | Gynoxys rugulosa |
| Asterales | Asteraceae | Hieracium lagopus |
| Asterales | Asteraceae | Hieracium sodiroanum |
| Asterales | Asteraceae | Joseanthus cuatrecasasii |
| Asterales | Asteraceae | Loricaria leptothamna |
| Asterales | Asteraceae | Montanoa ovalifolia |
| Asterales | Asteraceae | Oritrophium repens |
| Asterales | Asteraceae | Pappobolus nigrescens |
| Asterales | Asteraceae | Pentacalia dorrii |
| Asterales | Asteraceae | Pentacalia lanceolifolia |
| Asterales | Asteraceae | Pentacalia onae |
| Asterales | Asteraceae | Senecio ecuadorensis |
| Asterales | Campanulaceae | Centropogon comosus |
| Asterales | Campanulaceae | Centropogon erythraeus |
| Asterales | Campanulaceae | Centropogon steyermarkii |
| Asterales | Campanulaceae | Centropogon ursinus |
| Asterales | Campanulaceae | Lysipomia bilineata |
| Asterales | Campanulaceae | Lysipomia cylindrocarpa |
| Asterales | Campanulaceae | Lysipomia oellgaardii |
| Asterales | Campanulaceae | Lysipomia sparrei |
| Asterales | Campanulaceae | Siphocampylus humboldtianus |
| Asterales | Campanulaceae | Siphocampylus scandens |
| Athyriales | Blechnaceae | Blechnum lima |
| Brassicales | Brassicaceae | Cardamine lojanensis |

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|---|---|---|
| Caryophyllales | Achatocarpaceae | Achatocarpus pubescens |
| Caryophyllales | Cactaceae | Armatocereus matucanensis |
| Caryophyllales | Cactaceae | Espostoa frutescens |
| Chloranthales | Chloranthaceae | Hedyosmum purpurascens |
| Commelinales | Commelinaceae | Commelina quitensis |
| Commelinales | Pontederiaceae | Heteranthera rotundifolia |
| Coniferales | Podocarpaceae | Podocarpus sprucei |
| Cucurbitales | Begoniaceae | Begonia acerifolia |
| Cyperales | Cyperaceae | Rhynchospora hieronymi |
| Dipsacales | Valerianaceae | Valeriana convallarioides |
| Dipsacales | Valerianaceae | Valeriana hieronymii |
| Ericales | Clethraceae | Clethra parallelinervia |
| Ericales | Ericaceae | Cavendishia nobilis |
| Ericales | Ericaceae | Ceratostema lanceolatum |
| Ericales | Ericaceae | Ceratostema loranthiflorum |
| Ericales | Ericaceae | Ceratostema reginaldii |
| Ericales | Ericaceae | Gaultheria lanigera |
| Ericales | Ericaceae | Macleania benthamiana |
| Ericales | Ericaceae | Macleania poortmannii |
| Ericales | Ericaceae | Vaccinium crenatum |
| Ericales | Symplocaceae | Symplocos badia |
| Ericales | Symplocaceae | Symplocos fuscata |
| Ericales | Symplocaceae | Symplocos nana |
| Ericales | Theaceae | Freziera minima |
| Ericales | Theaceae | Freziera obovata |
| Fabales | Fabaceae | Calliandra taxifolia |
| Fabales | Fabaceae | Dalea ayavacensis |
| Fabales | Fabaceae | Indigofera tephrosioides |
| Fabales | Polygalaceae | Monnina arbuscula |
| Fabales | Polygalaceae | Monnina decurrens |
| Fabales | Polygalaceae | Monnina loxensis |
| Fabales | Polygalaceae | Polygala angustifolia |
| Filicales (Pteridales, Pteridopsida) | Dryopteridaceae | Arachniodes denticulata |
| Filicales (Pteridales, Pteridopsida) | Grammitidaceae | Lellingeria myosuroides |
| Filicales (Pteridales, Pteridopsida) | Hymenophyllaceae | Trichomanes lambertianum |
| Filicales (Pteridales, Pteridopsida) | Lophosoriaceae | Lophosoria contracta |
| Filicales (Pteridales, Pteridopsida) | Loxomataceae | Loxsomopsis pearcei |

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| Filicales (Pteridales, Pteridopsida) | Schizaeaceae | Anemia ferruginea |
| Filicales (Pteridales, Pteridopsida) | Thelypteridaceae | Thelypteris arenosa |
| Filicopsida | Pteridaceae | Cheilanthes moritziana |
| Gentianales | Asclepiadaceae | Cynanchum wurdackii |
| Gentianales | Gentianaceae | Erythraea quitensis |
| Gentianales | Gentianaceae | Gentianella gilioides |
| Gentianales | Gentianaceae | Gentianella oellgaardii |
| Gentianales | Gentianaceae | Halenia taruga-gasso |
| Gentianales | Gentianaceae | Macrocarpaea noctiluca |
| Gentianales | Gentianaceae | Macrocarpaea subsessilis |
| Gentianales | Loganiaceae | Desfontainia splendens |
| Gentianales | Rubiaceae | Arcytophyllum riveti |
| Gentianales | Rubiaceae | Arcytophyllum vernicosum |
| Gentianales | Rubiaceae | Palicourea lobbii |
| Gentianales | Rubiaceae | Palicourea myrtifolia |
| Gentianales | Rubiaceae | Palicourea psittacorum |
| Gentianales | Rubiaceae | Simira ecuadorensis |
| Geraniales | Geraniaceae | Geranium ayavacense |
| Geraniales | Geraniaceae | Geranium campii |
| Geraniales | Geraniaceae | Geranium loxense |
| Lamiales | Bignoniaceae | Jacaranda sparrei |
| Lamiales | Bignoniaceae | Macranthisiphon longiflorus |
| Lamiales | Lamiaceae | Lepechinia mutica |
| Lamiales | Lamiaceae | Salvia ochrantha |
| Lamiales | Lamiaceae | Satureja jamesonii |
| Lamiales | Lamiaceae | Satureja taxifolia |
| Lamiales | Scrophulariaceae | Calceolaria australis |
| Lamiales | Scrophulariaceae | Calceolaria lojensis |
| Lamiales | Scrophulariaceae | Calceolaria oxyphylla |
| Lamiales | Scrophulariaceae | Castilleja ecuadorensis |
| Laurales | Lauraceae | Nectandra subbullata |
| Laurales | Lauraceae | Ocotea rotundata |
| Laurales | Lauraceae | Persea brevipes |
| Laurales | Lauraceae | Persea bullata |
| Laurales | Lauraceae | Persea campii |
| Lepidoptera | Nymphalidae | Actinote stratonice scotosis |
| Lepidoptera | Nymphalidae | Adelpha corcyra dognini |
| Lepidoptera | Nymphalidae | Ceratinia neso espriella |
| Lepidoptera | Nymphalidae | Dircenna adina |

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|---|---|---|
| Lepidoptera | Nymphalidae | Dynamine postverta postverta |
| Lepidoptera | Nymphalidae | Forsterinaria boliviana |
| Lepidoptera | Nymphalidae | Heliconius melpomene |
| Lepidoptera | Nymphalidae | Hyalyris mestra mestra |
| Lepidoptera | Nymphalidae | Hyalyris praxilla mestra |
| Lepidoptera | Nymphalidae | Hyalyris praxilla praxilla |
| Lepidoptera | Nymphalidae | Scada kusa |
| Lepidoptera | Pieridae | Catasticta philais scurra |
| Lepidoptera | Pieridae | Enantia melite sonya |
| Liliales | Melanthiaceae | Isidrogalvia falcata |
| Lycopodiales | Lycopodiaceae | Huperzia austroecuadorica |
| Lycopodiales | Lycopodiaceae | Huperzia columnaris |
| Lycopodiales | Lycopodiaceae | Huperzia compacta |
| Lycopodiales | Lycopodiaceae | Huperzia espinosana |
| Lycopodiales | Lycopodiaceae | Huperzia kuesteri |
| Lycopodiales | Lycopodiaceae | Huperzia loxensis |
| Lycopodiales | Lycopodiaceae | Huperzia macbridei |
| Lycopodiales | Lycopodiaceae | Lycopodiella matthewsii |
| Lycopodiales | Lycopodiaceae | Lycopodium lawessonianum |
| Lycopodiales | Lycopodiaceae | Lycopodium sarmentosum |
| Malpighiales | Clusiaceae | Hypericum aciculare |
| Malpighiales | Clusiaceae | Hypericum maguirei |
| Malpighiales | Flacourtiaceae | Xylosma velutina |
| Malpighiales | Malpighiaceae | Malpighia punicifolia |
| Malpighiales | Malpighiaceae | Stigmaphyllon sarmentosum |
| Malpighiales | Passifloraceae | Passiflora exoperculata |
| Malpighiales | Passifloraceae | Passiflora loxensis |
| Malpighiales | Passifloraceae | Passiflora sanguinolenta |
| Malvales | Malvaceae | Malva pusilla |
| Myrtales | Melastomataceae | Axinaea lawessonii |
| Myrtales | Melastomataceae | Axinaea oblongifolia |
| Myrtales | Melastomataceae | Axinaea pauciflora |
| Myrtales | Melastomataceae | Brachyotum andreanum |
| Myrtales | Melastomataceae | Brachyotum azuayense |
| Myrtales | Melastomataceae | Brachyotum confertum |
| Myrtales | Melastomataceae | Brachyotum fictum |
| Myrtales | Melastomataceae | Brachyotum harlingii |
| Myrtales | Melastomataceae | Brachyotum incrassatum |
| Myrtales | Melastomataceae | Brachyotum rugosum |
| Myrtales | Melastomataceae | Brachyotum russatum |
| Myrtales | Melastomataceae | Brachyotum trichocalyx |

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|---|---|---|
| Myrtales | Melastomataceae | Meriania furvanthera |
| Myrtales | Melastomataceae | Meriania loxensis |
| Myrtales | Melastomataceae | Miconia bullata |
| Myrtales | Melastomataceae | Miconia ledifolia |
| Myrtales | Melastomataceae | Miconia lutescens |
| Myrtales | Melastomataceae | Miconia poortmannii |
| Myrtales | Melastomataceae | Miconia radula |
| Myrtales | Melastomataceae | Miconia stenophylla |
| Myrtales | Myrtaceae | Myrteola microphylla |
| Myrtales | Onagraceae | Fuchsia harlingii |
| Myrtales | Onagraceae | Fuchsia scherffiana |
| Myrtales | Onagraceae | Fuchsia summa |
| Orthotrichales | Orthotrichaceae | Macromitrium perreflexum |
| Oxalidales | Cunoniaceae | Weinmannia trichocarpa |
| Oxalidales | Oxalidaceae | Oxalis elegans |
| Oxalidales | Oxalidaceae | Oxalis latemucronata |
| Oxalidales | Oxalidaceae | Oxalis oreocharis |
| Oxalidales | Oxalidaceae | Oxalis psoraleoides |
| Passeriformes | Cardinalidae | Saltator nigriceps |
| Passeriformes | Formicariidae | Grallaricula peruviana |
| Passeriformes | Furnariidae | Syndactyla ruficollis |
| Passeriformes | Icteridae | Dives dives warszewiczi |
| Passeriformes | Rhinocryptidae | Scytalopus robbinsi |
| Passeriformes | Thamnophilidae | Thamnophilus zarumae |
| Piperales | Piperaceae | Peperomia inaequalifolia |
| Piperales | Piperaceae | Peperomia persulcata |
| Piperales | Piperaceae | Peperomia sodiroi |
| Piperales | Piperaceae | Piper pilovarium |
| Poales | Bromeliaceae | Guzmania atrocastanea |
| Poales | Bromeliaceae | Guzmania besseae |
| Poales | Bromeliaceae | Guzmania devansayana |
| Poales | Bromeliaceae | Puya exigua |
| Poales | Bromeliaceae | Puya lanata |
| Poales | Bromeliaceae | Puya maculata |
| Poales | Bromeliaceae | Puya nutans |
| Poales | Bromeliaceae | Racinaea pugiformis |
| Poales | Bromeliaceae | Racinaea tripinnata |
| Poales | Bromeliaceae | Tillandsia caerulea |
| Poales | Bromeliaceae | Tillandsia confertiflora |
| Poales | Bromeliaceae | Tillandsia laminata |
| Poales | Bromeliaceae | Tillandsia lymanii |

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|---|---|---|
| Poales | Bromeliaceae | Tillandsia wurdackii |
| Poales | Bromeliaceae | Vriesea appendiculata |
| Poales | Bromeliaceae | Vriesea appenii |
| Poales | Bromeliaceae | Vriesea limonensis |
| Poales | Eriocaulaceae | Paepalanthus celsus |
| Poales | Poaceae | Agrostis mertensii |
| Poales | Poaceae | Andropogon aequatoriensis |
| Poales | Poaceae | Andropogon scabriglumis |
| Poales | Poaceae | Aristida ecuadoriensis |
| Poales | Poaceae | Aulonemia hirtula |
| Poales | Poaceae | Axonopus mathewsii |
| Poales | Poaceae | Bothriochloa springfieldii |
| Poales | Poaceae | Chusquea falcata |
| Poales | Poaceae | Chusquea leonardiorum |
| Poales | Poaceae | Chusquea neurophylla |
| Poales | Poaceae | Cottea pappophoroides |
| Poales | Poaceae | Euclasta condylotricha |
| Poales | Poaceae | Festuca caldasii |
| Poales | Poaceae | Festuca parciflora |
| Poales | Poaceae | Heteropogon melanocarpus |
| Poales | Poaceae | Muhlenbergia microsperma |
| Poales | Poaceae | Neurolepis laegaardii |
| Poales | Poaceae | Neurolepis nana |
| Poales | Poaceae | Panicum pycnoclados |
| Poales | Poaceae | Panicum stramineum |
| Poales | Poaceae | Polypogon viridis |
| Poales | Poaceae | Setaria cordobensis |
| Poales | Poaceae | Setaria macrostachya |
| Polypodiales | Dennstaedtiaceae | Paesia viscosa |
| Polypodiales | Gleicheniaceae | Sticherus brevitomentosus |
| Polypodiales | Gleicheniaceae | Sticherus lechleri |
| Polypodiales | Grammitidaceae | Ceradenia phloiocharis |
| Polypodiales | Grammitidaceae | Zygophlebia matthewsii |
| Polypodiales | Pteridaceae | Eriosorus aureonitens |
| Proteales | Proteaceae | Panopsis ferruginea |
| Psittaciformes | Psittacidae | Pyrrhura orcesi |
| Ranunculales | Berberidaceae | Berberis engleriana |
| Ranunculales | Berberidaceae | Berberis pindilicensis |
| Rosales | Rosaceae | Lachemilla angustata |
| Rosales | Rosaceae | Rubus laegaardii |
| Rosales | Rosaceae | Rubus loxensis |

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|---|---|---|
| Rosales | Rosaceae | Rubus peruvianus |
| Santalales | Loranthaceae | Cladocolea harlingii |
| Solanales | Solanaceae | Larnax steyermarkii |
| Solanales | Solanaceae | Solanum cutervanum |
| Solanales | Solanaceae | Solanum leiophyllum |

**Table 8**

| Order | Family | Species |
|---|---|---|
| Apiales | Araliaceae | Oreopanax oroyanus |
| Apodiformes | Trochilidae | Polyonymus caroli |
| Apodiformes | Trochilidae | Thaumastura cora |
| Asparagales | Amaryllidaceae | Alstroemeria pygmaea |
| Asparagales | Amaryllidaceae | Bomarea albimontana |
| Asparagales | Iridaceae | Orthrosanthus nigrorhynchus |
| Asparagales | Iridaceae | Orthrosanthus occissapungus |
| Asparagales | Iridaceae | Sisyrinchium brevipes |
| Asparagales | Orchidaceae | Aa mathewsii |
| Asparagales | Orchidaceae | Altensteinia paludosa |
| Asparagales | Orchidaceae | Epidendrum excelsum |
| Asparagales | Orchidaceae | Masdevallia amabilis |
| Asparagales | Orchidaceae | Myrosmodes paludosum |
| Asterales | Asteraceae | Aristeguietia discolor |
| Asterales | Asteraceae | Baccharis peruviana |
| Asterales | Asteraceae | Baccharis uniflora |
| Asterales | Asteraceae | Barnadesia dombeyana |
| Asterales | Asteraceae | Chersodoma antennaria |
| Asterales | Asteraceae | Chersodoma diclina |
| Asterales | Asteraceae | Chersodoma ovopedata |
| Asterales | Asteraceae | Coreopsis integra |
| Asterales | Asteraceae | Coreopsis senaria |
| Asterales | Asteraceae | Diplostephium azureum |
| Asterales | Asteraceae | Diplostephium foliosissimum |
| Asterales | Asteraceae | Erigeron rosulatus |
| Asterales | Asteraceae | Gamochaeta humilis |
| Asterales | Asteraceae | Gamochaeta oreophila |
| Asterales | Asteraceae | Grosvenoria coelocaulis |
| Asterales | Asteraceae | Gynoxys caracensis |
| Asterales | Asteraceae | Gynoxys oleifolia |
| Asterales | Asteraceae | Hypochaeris graminifolia |
| Asterales | Asteraceae | Jungia schuerae |
| Asterales | Asteraceae | Lasiocephalus campanulatus |
| Asterales | Asteraceae | Lophopappus peruvianus |
| Asterales | Asteraceae | Mniodes andina |
| Asterales | Asteraceae | Mniodes pulvinata |

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|---|---|---|
| Asterales | Asteraceae | Mutisia mathewsii |
| Asterales | Asteraceae | Novenia tunariensis |
| Asterales | Asteraceae | Oritrophium hieracioides |
| Asterales | Asteraceae | Paranephelius ovatus |
| Asterales | Asteraceae | Paranephelius uniflorus |
| Asterales | Asteraceae | Senecio adenophyllus |
| Asterales | Asteraceae | Senecio arachnolomus |
| Asterales | Asteraceae | Senecio bolivarianus |
| Asterales | Asteraceae | Senecio calvus |
| Asterales | Asteraceae | Senecio chavanilloensis |
| Asterales | Asteraceae | Senecio collinus |
| Asterales | Asteraceae | Senecio condimentarius |
| Asterales | Asteraceae | Senecio expansus |
| Asterales | Asteraceae | Senecio hyoseridifolius |
| Asterales | Asteraceae | Senecio klattii |
| Asterales | Asteraceae | Senecio leucophorbius |
| Asterales | Asteraceae | Senecio macrorrhizus |
| Asterales | Asteraceae | Senecio melanocalyx |
| Asterales | Asteraceae | Senecio modestus |
| Asterales | Asteraceae | Senecio praeruptorum |
| Asterales | Asteraceae | Senecio rufescens |
| Asterales | Asteraceae | Senecio scrobicarioides |
| Asterales | Asteraceae | Senecio serratifolius |
| Asterales | Asteraceae | Senecio sublutescens |
| Asterales | Asteraceae | Senecio tingoensis |
| Asterales | Asteraceae | Stevia macbridei |
| Asterales | Asteraceae | Stuckertiella capitata |
| Asterales | Asteraceae | Werneria aretioides |
| Asterales | Asteraceae | Werneria dactylophylla |
| Asterales | Campanulaceae | Lobelia nana |
| Asterales | Campanulaceae | Wahlenbergia peruviana |
| Boraginales | Hydrophyllaceae | Phacelia secunda |
| Brassicales | Brassicaceae | Brayopsis alpaminae |
| Brassicales | Brassicaceae | Brayopsis calycina |
| Brassicales | Brassicaceae | Descurainia athroocarpa |
| Brassicales | Brassicaceae | Draba depressa |
| Brassicales | Brassicaceae | Draba macleanii |
| Brassicales | Brassicaceae | Weberbauera spathulifolia |
| Bryales (Briophyta) | Bryaceae | Orthodontium gracile |
| Caryophyllales | Amaranthaceae | Alternanthera macbridei |
| Caryophyllales | Cactaceae | Opuntia floccosa |

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|---|---|---|
| Caryophyllales | Caryophyllaceae | Arenaria serpens |
| Caryophyllales | Caryophyllaceae | Cerastium nutans |
| Caryophyllales | Caryophyllaceae | Drymaria engleriana |
| Caryophyllales | Caryophyllaceae | Drymaria stereophylla |
| Caryophyllales | Caryophyllaceae | Paronychia libertadiana |
| Caryophyllales | Caryophyllaceae | Paronychia weberbaueri |
| Caryophyllales | Caryophyllaceae | Pycnophyllum aschersonianum |
| Caryophyllales | Caryophyllaceae | Pycnophyllum molle |
| Cornales | Loasaceae | Cajophora sepiaria |
| Cucurbitales | Begoniaceae | Begonia pleiopetala |
| Cyperales | Cyperaceae | Carex boliviensis |
| Cyperales | Cyperaceae | Cyperus seslerioides |
| Cyperales | Cyperaceae | Scirpus inundatus |
| Dicranales | Dicranaceae | Pilopogon peruvianus |
| Dioscoreales | Dioscoreaceae | Dioscorea ancachsensis |
| Dipsacales | Valerianaceae | Belonanthus longitubulosus |
| Dipsacales | Valerianaceae | Valeriana coarctata |
| Dipsacales | Valerianaceae | Valeriana connata |
| Dipsacales | Valerianaceae | Valeriana crassipes |
| Dipsacales | Valerianaceae | Valeriana decussata |
| Dipsacales | Valerianaceae | Valeriana globularis |
| Dipsacales | Valerianaceae | Valeriana pycnantha |
| Dipsacales | Valerianaceae | Valeriana weberbaueri |
| Ericales | Ericaceae | Gaultheria brachybotrys |
| Ericales | Polemoniaceae | Cantua buxifolia |
| Fabales | Fabaceae | Astragalus garbancillo |
| Fabales | Fabaceae | Astragalus uniflorus |
| Fabales | Fabaceae | Lupinus ballianus |
| Fabales | Fabaceae | Lupinus weberbaueri |
| Fabales | Fabaceae | Mimosa revoluta |
| Fabales | Fabaceae | Otholobium pubescens |
| Fabales | Fabaceae | Senna birostris |
| Fabales | Polygalaceae | Monnina conferta |
| Funariales | Funariaceae | Entosthodon laevis |
| Gentianales | Asclepiadaceae | Cynanchum tarmense |
| Gentianales | Gentianaceae | Gentiana prostrata |
| Gentianales | Gentianaceae | Gentianella roseolilacina |
| Gentianales | Gentianaceae | Gentianella thyrsoidea |
| Gentianales | Gentianaceae | Gentianella tristicha |
| Gentianales | Gentianaceae | Gentianella weberbaueri |
| Gentianales | Gentianaceae | Halenia stuebelii |

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|---|---|---|
| Geraniales | Geraniaceae | Geranium pavonianum |
| Geraniales | Geraniaceae | Geranium sessiliflorum |
| Grimmiales | Grimmiaceae | Grimmia trinervis |
| Grimmiales | Ptychomitriaceae | Ptychomitrium chimborazense |
| Hypnales | Hylocomiaceae | Pilotrichella quitensis |
| Hypnales | Leskeaceae | Leptopterigynandrum austro-alpinum |
| Isoetales | Isoetaceae | Isoetes boliviensis |
| Jungermanniales | Gymnomitriaceae | Gymnomitrion laceratum |
| Lamiales | Lamiaceae | Lepechinia meyenii |
| Lamiales | Lamiaceae | Satureja elliptica |
| Lamiales | Lamiaceae | Satureja sericea |
| Lamiales | Lamiaceae | Stachys peruviana |
| Lamiales | Plantaginaceae | Plantago lamprophylla |
| Lamiales | Plantaginaceae | Plantago sericea sericea |
| Lamiales | Scrophulariaceae | Bartsia canescens |
| Lamiales | Scrophulariaceae | Bartsia diffusa |
| Lamiales | Scrophulariaceae | Bartsia patens |
| Lamiales | Scrophulariaceae | Bartsia pyricarpa |
| Lamiales | Scrophulariaceae | Bartsia tomentosa |
| Lamiales | Scrophulariaceae | Bartsia tricolor |
| Lamiales | Scrophulariaceae | Calceolaria bicrenata |
| Lamiales | Scrophulariaceae | Calceolaria cajabambae |
| Lamiales | Scrophulariaceae | Calceolaria incarum |
| Lamiales | Scrophulariaceae | Calceolaria linearis |
| Lamiales | Scrophulariaceae | Calceolaria triloba |
| Lamiales | Scrophulariaceae | Calceolaria viscosa |
| Lamiales | Scrophulariaceae | Calceolaria weberbaueriana |
| Lamiales | Scrophulariaceae | Castilleja cerroana |
| Lamiales | Scrophulariaceae | Castilleja vadosa |
| Lamiales | Scrophulariaceae | Porodittia triandra |
| Lamiales | Verbenaceae | Verbena fasciculata |
| Lycopodiales | Lycopodiaceae | Huperzia saururus |
| Malpighiales | Euphorbiaceae | Euphorbia raphanorrhiza |
| Malpighiales | Flacourtiaceae | Pineda incana |
| Malpighiales | Passifloraceae | Passiflora lobbii |
| Malpighiales | Passifloraceae | Passiflora trifoliata |
| Malpighiales | Violaceae | Viola micranthella |
| Malvales | Malvaceae | Acaulimalva crenata |
| Malvales | Malvaceae | Nototriche artemisioides |
| Malvales | Malvaceae | Nototriche coccinea |
| Malvales | Malvaceae | Nototriche obtusa |

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|---|---|---|
| Myrtales | Melastomataceae | Brachyotum naudinii |
| Myrtales | Melastomataceae | Miconia alpina |
| Odonata | Libellulidae | Orthocarpus laciniatus |
| Orthotrichales | Orthotrichaceae | Orthotrichum pungens |
| Passeriformes | Furnariidae | Thripophaga humilis humilis |
| Passeriformes | Furnariidae | Upucerthia serrana serrana |
| Passeriformes | Tyrannidae | Ochthoeca leucophrys leucometopa |
| Pertusariales | Icmadophilaceae | Siphula fastigiata |
| Poales | Juncaceae | Juncus ebracteatus |
| Poales | Poaceae | Calamagrostis fuscata |
| Poales | Poaceae | Calamagrostis tarmensis |
| Poales | Poaceae | Deyeuxia densiflora |
| Poales | Poaceae | Deyeuxia eminens |
| Poales | Poaceae | Deyeuxia heterophylla |
| Poales | Poaceae | Deyeuxia mandoniana |
| Poales | Poaceae | Deyeuxia nitidula |
| Poales | Poaceae | Deyeuxia ovata |
| Poales | Poaceae | Deyeuxia recta |
| Poales | Poaceae | Deyeuxia spicigera |
| Poales | Poaceae | Deyeuxia vicunarum |
| Poales | Poaceae | Dielsiochloa floribunda |
| Poales | Poaceae | Festuca carazana |
| Poales | Poaceae | Festuca casapaltensis |
| Poales | Poaceae | Festuca dichoclada |
| Poales | Poaceae | Festuca glyceriantha |
| Poales | Poaceae | Festuca rigidifolia |
| Poales | Poaceae | Festuca weberbaueri |
| Poales | Poaceae | Hordeum muticum |
| Poales | Poaceae | Paspalum tuberosum |
| Poales | Poaceae | Poa fibrifera |
| Poales | Poaceae | Poidium monandrum |
| Poales | Poaceae | Stipa brachyphylla |
| Poales | Poaceae | Stipa hans-meyeri |
| Poales | Poaceae | Trisetum macbridei |
| Polypodiales | Polypodiaceae | Microgramma chrysolepis |
| Pottiales | Pottiaceae | Hennediella angustifolia |
| Pottiales | Pottiaceae | Leptodontium tricolor |
| Pottiales | Pottiaceae | Rhexophyllum subnigrum |
| Pottiales | Pottiaceae | Syntrichia obtusissima |
| Ranunculales | Ranunculaceae | Anemone helleborifolia |
| Ranunculales | Ranunculaceae | Krapfia weberbaueri |

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|---|---|---|
| Ranunculales | Ranunculaceae | Ranunculus cymbalaria |
| Ranunculales | Ranunculaceae | Thalictrum longistylum |
| Rodentia | Muridae | Auliscomys pictus |
| Rosales | Rosaceae | Alchemilla erodiifolia |
| Rosales | Rosaceae | Alchemilla frigida |
| Rosales | Rosaceae | Alchemilla paludicola |
| Rosales | Rosaceae | Alchemilla vulcanica |
| Rosales | Rosaceae | Kageneckia lanceolata |
| Rosales | Rosaceae | Polylepis racemosa |
| Rosales | Rosaceae | Prunus rigida |
| Santalales | Loranthaceae | Tristerix chodatianus |
| Santalales | Loranthaceae | Tristerix pubescens |
| Saxifragales | Crassulaceae | Echeveria excelsa |
| Saxifragales | Crassulaceae | Tillaea paludosa |
| Saxifragales | Crassulaceae | Villadia dielsii |
| Saxifragales | Crassulaceae | Villadia imbricata |
| Saxifragales | Saxifragaceae | Escallonia corymbosa |
| Saxifragales | Saxifragaceae | Escallonia resinosa |
| Saxifragales | Saxifragaceae | Ribes cuneifolium |
| Saxifragales | Saxifragaceae | Ribes weberbaueri |
| Solanales | Solanaceae | Iochroma umbellatum |
| Solanales | Solanaceae | Salpichroa glandulosa |
| Solanales | Solanaceae | Salpichroa hirsuta |
| Solanales | Solanaceae | Solanum acaule acaule |
| Solanales | Solanaceae | Solanum orophilum |
| Solanales | Solanaceae | Solanum sogarandinum |
| Solanales | Solanaceae | Solanum stenotomum goniocalyx |