

**Additional file 2. conservation status and natural history of the 17 vertebrate species.**

Species	Common name		Silhouette
<i>Sylvilagus brasiliensis</i>	Rabbit	Cottontail Rabbit	1
<i>Didelphis marsupialis</i>	Opossum	Common opossum	2
<i>Bradypus variegatus</i>	Sloth	Brown-backed sloth	3
<i>Chelonoidis carbonaria</i>	Turtle	Red-legged tortoise	4
<i>Rhinella horribilis</i>	Toad	Cane toad	5
<i>Brotogeris jugularis</i>	Parakeet	Orange-chinned parakeet	6
<i>Sicalis flaveola</i>	Canary	Saffron finch	7
<i>Mazama temama</i>	Deer	Central American red brocket	8
<i>Amazilia andina</i>	Hummingbird	Emerald Andean Humming bird	9
<i>Megascops choliba</i>	Owl	Tropical screech owl	10
<i>Anolis tolimensis</i>	Lizard	Tolimenses anole	11
<i>Mastigodryas boddaerti</i>	Snake	Boddaert's tropical race	12
<i>Molossus molossus</i>	Bat	Velvety free-tailed bat	13
<i>Nectomys magdalenae</i>	Rat	Magdalena-Cauca water rat	14
<i>Pandion haliaetus</i>	Eagle	Osprey	15
<i>Tremarctos ornatus</i>	Spectacled Bear	Spectaled bear	16
<i>Boana platanera</i>	Frog	Banana tree dwelling frog	17

Species name	IUCN Category	Endemic or not to Colombia	CITES and/or threat	Habitat	Natural History
<i>Sylvilagus brasiliensis</i>	EN	NO		Found in subtropical/tropical humid lowland forests.	It is an herbivorous and solitary species that consumes leaves, shoots, young branches and sometimes bark of certain trees (Tirira, 2007).

					<p>The reproductive behavior of this species is usually characterized by one male for every two females; however, the dominant male is the one who breeds with the females of the group and only allows them to smell and look at the other males (CAMPS, 1997). They reproduce throughout the year, gestation time is 44 days, and they have an average of 4.7 individuals/year (Durant, 1983; Chapman and Ceballos, 1990).</p>
<i>Didelphis marsupialis</i>	LC	NO	<p>This species is hunted only where other animals are scarce.</p>	<p>This species tolerates a wide variety of habitats such as rainforests and subtropical forests; also scrub - subtropical/tropical dry and scrub - subtropical/tropical humid; also in artificial/artificial systems such as arable land, rural gardens and urban areas.</p>	<p><i>Didelphis marsupialis</i> has a common characteristic that represents them, at the time of reproduction. Gestation lasts for short periods ranging from 8 to 45 days approximately, after the young are born embryonically and migrate to a pouch called marsupium, located in the abdomen and inside which are the mammary glands where they adhere until they complete their development (Ceballos et al., 2002; Morales-Jiménez, 2004). On the other hand, the feeding habits of this species are omnivorous, since its diet contains ripe fruits, vegetables,</p>

					leaves, nectar, flowers, invertebrates, small vertebrates and even carrion (Feldhamer, 2003).
<i>Bradypus variegatus</i>	LC	NO	<p>Listed in CITES Appendix II.</p> <p>In Brazil, especially in the northeastern region and the Amazon, and in Colombia, the common sloth is hunted and sold in public markets as food, medicine and as a pet species. In several tourist sites, locals use <i>B. variegatus</i> to entertain visitors.</p>	<p>Their habitat has been recorded in various forest types, such as forest-subtropical/tropical wet lowland, forest-subtropical/tropical mangrove vegetation above high tide level, forest-subtropical/tropical swamp and forest-subtropical/tropical humid montane; in addition, they have also been recorded in artificial/terrestrial habitats such as plantations.</p>	<p>It is an exclusively arboreal species, from time to time it tends to descend to the ground when it needs to move to another tree if the cover is not continuous or to defecate approximately every 8 days. They are a particular species because their movements are slow, being on the ground they help themselves with their elbows, front claws and hind feet, since they are unable to assume a quadrupedal posture (Hayssen, 2010).</p> <p>Regarding their reproduction, during the mating season they usually make unit whistles, which are emitted by the females to call the males. Males last from 30 to 90 minutes courting and chasing females for mating, after which they remain together until two days later. The gestation period for females is 6 months, they give birth to one calf per delivery and this work is carried out hanging from trees (Ballesteros et al., 2009).</p> <p>It is a particularly herbivorous</p>

					mammal that consumes leaves, shoots, shoots and fruits in some cases (Ballesteros et al., 2009).
<i>Chelonoidis carbonaria</i>	VU (Listed by the Freshwater Turtle and Tortoise Specialist Group, 2011).	NO	It is listed in CITES Appendix II. This species of turtle used for pet in natural and urban environments.	It is a species with a wide geographic range, found in a great variety of habitats, such as low and open areas, savannah, dry forest patches, scrublands (Cárdenas-Arévalo et al. 2019a), also riparian vegetation, near wetlands (Carvajal-Cogollo et al. 2007, Carvajal et al. 2013) and morichales (Castaño and Lugo 1981).	<p>The breeding season of the species varies in different areas of the country. In the Caribbean and Magdalena-Cauca region it occurs from July to February (Ulloa-Delgado 2010), and in the Orinoquia it occurs between March and June (Castaño-Mora et al. 2015), generally during rainy seasons. Eggs are usually deposited in shallow holes dug in the ground for this purpose (Castaño and Lugo 1981).</p> <p>It is an omnivorous species (Wang et al. 2011), where it feeds on fruits, seeds, leaves, flowers, fungi, invertebrates and vertebrates that are part of its diet, which varies according to the seasonal availability of food (Moskovits and Bjorndal 1990).</p>
<i>Rhinella horribilis</i>	LC	NO		It occupies almost all lowland habitats from the trans-Andean region to the Andean forests, in Colombia it is found in all departments from 0 masl to 2400 masl (List of amphibians of Colombia). It is a species associated	This species is distributed depending on the absence or presence of water bodies for reproduction (Suarez, 2017), preferring those microhabitats associated with lagoons (Martínez 2004), or permanent pools of water in pastures with and without trees (Blanco-Torres

				<p>with open areas, is found in disturbed agricultural, garden, or urban areas, and is less present in conserved forests. However, it is occasionally found in tropical rainforests or high mountain areas, avoiding areas with dense vegetation that may act as a barrier to its dispersal (Solís et al. 2008). They can also be found in temporary water bodies and shallow wells (McDiarmid and Altig 1999, Evans et al. 1996).</p>	<p>and Bonilla-Gómez 2010). Eggs are laid in the form of small strings attached to the bottom substrate of shallow water, and after 36 hours the eggs hatch. The tadpoles are aquatic, benthic, usually black and cluster in still, shallow water, tolerate high temperatures and grow between 30 and 80 days. They grow rapidly, reach sexual maturity within a year and individuals of this species can live up to 16 years (Savage 2002, Ibañez et al. 1999, Zug and Zug 1979, Zug et al. 1975).</p> <p>They are aggressive predators, feeding on invertebrates (including toxic invertebrates such as wasps and spiders), lizards, small rodents, and other young frogs of the same species. If in captivity, they may consume food from dogs and cats, and plant material (Savage 2002, Ibañez et al. 1999).</p>
<i>Brotogeris jugularis</i>	LC	NO	<p>It is listed in CITES Appendix II.</p> <p>Internationally they are used as pets and</p>	<p>Inhabits dry tropical forests and humid lowlands. Humid savannah areas. Also, artificial/terrestrial areas such as arable land, pastures, plantations and urban areas.</p>	<p>These birds tend to nest in tree hollows, trunks, and in tree shelters, where they lay two eggs, occasionally four, during the summer or in times of drought. Both the male and female take turns taking care of</p>

			exhibition animals.		<p>the eggs until the size of the cavity allows both to participate simultaneously (Silvestre, 2006). Incubation of the eggs takes approximately 25 to 27 days, after which the chicks remain in the nest for up to seven weeks (Silvestre, 2006).</p> <p>They feed on cultivated and wild fruits such as <i>Manguifera indica</i>, guineo <i>Musa sp</i>, <i>Guava psidium guajava</i> and especially maize <i>zea mays</i> (Silvestre, 2006). In addition to flowers and seeds of various plants such as <i>Bombax sp.</i>, <i>Ficus ovalis</i>, <i>Byrsonima sp.</i>, <i>Ceiba sp.</i>, <i>Cecropia sp.</i> and <i>Muntingia sp.</i>; it also consumes nectar of <i>guava</i>, <i>balsa</i> and <i>Erythrina sp.</i> and can be a very destructive species in crops of fruit species (Hilty and Brown, 2001).</p>
<i>Sicalis flaveola</i>	LC	NO	Locally and nationally, they are used as pets and exhibition animals.	They usually inhabit three kinds of shrublands such as subtropical/dry tropical, subtropical/humid tropical and subtropical/high altitude tropical. Also, terrestrial artificial areas such as arable land, rural gardens and urban areas.	Temperate zones and the best environmental conditions, the probability of finding better quality available mates increases (Young, 1994; Hansson et al., 2000; Winkler et al., 2014). This species has little reproduction, they incubate three eggs per year and the gestation period is 16 days, the duration of chick care is between 14 to 18 days, depending on the

					<p>subspecies (Manson, 1985; Palmerio &amp; Massoni, 2009; Orozco et al., 2016).</p> <p>Its diet is based on seeds, wild grasses, worms, grasses and small gnaws that it searches in the soil to provide itself with minerals; this activity is carried out mainly in the morning hours (Reyes and Riveros, 2019).</p>
<p><i>Mazama temama</i> <b>8</b></p>	DD	NO	<p>It is listed in CITES Appendix III.</p> <p>This species is threatened by its commercialization for cultural activities, mainly as a food source, but also for clothing and accessories, and for sport hunting (Reyna-Hurtado 2002).</p>	<p>This species is considered characteristic of well-preserved high forest sites (Branan and Marchinton 1985, Eisenberg 1989). It is found in evergreen forest, cloud forest, sub evergreen forest and low dry forest (Reyna-Hurtado 2002, Ivan-Lira and Naranjo-Piñera 2003). In addition, it can be found in transformed areas such as secondary forests and farmland (Bodmer 1989, Bello 2004). However, it tends to try as much as possible to avoid deforested areas and agricultural areas (Weber 2005).</p>	<p>They are diurnal animals, but more frequent at night (Rivero <i>et al.</i>, 2005). It is a solitary species. Their reproductive rate is low, as they have only one to two young per year with a gestation period of 200 to 225 days (Hurtado-Gonzales and Bodmer, 2006). They reach sexual maturity in the first year of life, between seven and eight months (Hurtado and Gonzales, 2006). They also have olfactory communication, i.e., they mark their territory by scraping their forehead against the trunk or bark of trees, urinating and defecating; in this way, the odor is perceived by their conspecifics (Black-Décima, 2000).</p> <p>The feeding behavior of the</p>

					species depends on the area in which it is found; it has been recorded that in some areas <i>Mazama temama</i> is highly frugivorous (80% of its diet throughout the year) and 75% of its diet is based on only two species of trees characteristic of tall forests (Weber, 2005); in other areas, this species is highly herbivorous and in a low percentage consumes grasses, it can also consume fungi, fallen flowers, and fallen leaves when fruits are scarce (McCulloch 1973). Its diet depends on the conservation status of the habitat and that forest reduction translates into reduced resources, at least for frugivorous species (Wright et al. 1999, Urquiza-Haas et al. 2010).
<i>Amazilia andina</i>	LC	NO	It is found in appendix II of CITES.	The hummingbird inhabits wet forest edges and secondary forest from understory to subcanopy. Sometimes it can also be observed in crops and in deforested areas with a few scattered trees.	It is usually a solitary species, perching on exposed or hidden dry branches, in medium and high strata where it usually sings loudly and constantly. They can reproduce throughout the year in some localities. There, they build a cup-shaped nest, based on lichens that fix



					<p>them in the form of a spider's web, where they lay their eggs, which are incubated by the female (Palacio, 2010).</p> <p>They feed mainly on flower nectar; however, they also hunt insects during flight (Palacio, 2010).</p>
<i>Megascops choliba</i>	LC	NO	Nationally, they are used as pets and exhibition animals.	It inhabits tropical forests, savannahs, scrublands, and can even be seen in urban areas. It is found from Costa Rica to Bolivia, to Paraguay and Argentina, all over Brazil.	<p>Most of the diet of <i>Megascops choliba</i> is composed of insects, particularly of the orders Blattodea (cockroaches) and Orthoptera (grasshoppers) (Delgado, 2007).</p> <p>This species lays eggs mainly between January and July; in addition, they nest in hollow trees, pillars in houses, holes in roofs, or in any safe cavity. They rarely nest on top of tree branches.</p>
<i>Anolis tolimensis</i>	LC	YES	-----	<p>It is distributed in the very humid low montane forest. It is an arboreal species that is also found in thickets below 2 m in height, it is distributed in open sites with hedges and small bushes on forest edges and roads (Ardila-Marín et al., 2008).</p> <p>This species is mainly distributed in the central and eastern mountain ranges, in the departments</p>	<p><i>Anolis tolimensis</i> is a small lizard species (56-58 mm cloacal rostral length), reddish-brown in color. According to Lynch and Renjifo (2001), the females deposit two small eggs in the leaf litter. Although this species is widespread in the eastern and central cordilleras between 1000 and 2300 m asl (Lynch &amp; Renjifo 2001, Páez et al. 2002), little is known about the natural history of this species. Females present a larger body size than males,</p>

				<p>of Caldas, Antioquia, Boyacá, Cundinamarca, Santander and Tolima, in a range from 1000 to 2300 meters above sea level (Lynch and Renjifo).</p>	<p>indicating that the female tends to have more weight (Ardila et al., 2018).</p> <p>Reproductive activity does not seem to be related to any climatic season. In the case of courtship and oviposition they seem to be associated with the dry season. However, the rainy season favors the hatching of eggs laid a year earlier (Ardila et al., 2018).</p> <p>Regarding their diet, they are insectivores, mainly Hymenoptera, Coleoptera and insect larvae (Barragán and Calderón, 2013).</p>
<i>Mastigodryas boddaerti</i>	LC	NO	This species is not used or traded	<p>This species is widely distributed in South America, in an altitudinal range that goes from 24 masl to 2600 masl. It is present in lowland tropical evergreen forest, premontane and montane forest (G. Rivas pers. comm, 2013). In Brazil, it is found in tropical rainforests, conserved and non-conserved areas and gallery forests (Martins and Oliveira 1998).</p>	<p>There is not much information on the reproduction of this species, but studies show that this species can use cavities in caves, tree holes or hollows to deposit its eggs (Oliveira and Barros, 2013). It is a nocturnal snake that mainly feeds on lizards, frogs, reptile or bird eggs and rodents (Martins and Oliveira 1998).</p>
<i>Molossus molossus</i>	LC	NO		<p>It is a widely distributed species in Central and</p>	<p>It has several reproductive periods between February and</p>

				<p>South America, mainly in urban areas. In addition, in open spaces they can take refuge in palm leaves (Barquez, 2013).</p>	<p>March, and between October and December. The young of this species reach adult size at around 60 days (Ramirez-Chavez et al., 2008). However, Sampedro-Marin et al. (2008) point out that the favorable climatic conditions, the abundance of refuges and food allow the species to reproduce all year round; in addition, it does not have many predators, which makes it a very ecologically successful species.</p> <p>This species feeds mainly on insects, usually of the orders <i>didpeta</i>, <i>colioptera</i>, <i>pelidoptera</i>, <i>hymenoptera</i>, <i>hemiptera</i>; in addition to presenting only two peaks of activity, one as soon as night falls and the other before dawn (Ramírez-Chaves and Zambrano-G., 2008).</p>
<i>Nectomys magdalenae</i>	DD	YES	The main threat to this species is habitat deforestation.	<p>This species is adapted to swimming and is almost always found near water (Emmons and Feer 1997). It can also be found in rainforests, gallery forests, disturbed forests, flooded grasslands, gardens, plantations and clearings (Emmons and Feer 1997). It is believed to be nocturnal, solitary,</p>	<p>It is an omnivorous and solitary species. The diet of this species is based on arthropods, crabs and other invertebrates, it also eats fruits and mushrooms. This species is predated by owls in Colombia (Delgado and Catano-B. 2004).</p> <p>Females have repeated 25-day gestations, in which they produce four offspring (Cuartas-</p>

				terrestrial and semi-aquatic. This species nests under logs or roots or in dense vegetation.	Calle, 2014).
<i>Pandion haliaetus</i>	LC	NO	<p>It is listed in CITES Appendix II.</p> <p>The species is rarely used or consumed; however, deforestation is one of the main threats it faces. In addition, there are records that egg collection and traffic of these birds led to the spread of the species in Azerbaijan (del Hoyo et al. 1994). Similarly; in North Africa, consumption of osprey chicks was suspected to have occurred in the past (Monti et al. 2013, H. Nibani pers. obs.).</p>	<p>It inhabits areas around shallow waters, being sufficiently tolerant to human settlement to persist in suburban and urban environments. It also tends to inhabit a variety of ecosystems such as tropical and subtropical mangrove vegetation forests above high tide level, rivers, streams, marshes and lakes.</p> <p>In addition, it is found in marine neritic and coastal/supramareal marine ecosystems; and in artificial aquatic ecosystems such as water storage areas (over 8ha), aquaculture ponds and drainage canals and ditches.</p>	<p>Each pair of eagles builds a nest of sticks and may use it for many years. As time goes by, they add more materials to the nest, where the nests can weigh hundreds of pounds. The clutch usually has three eggs, cream-white in color and sometimes heavily spotted with dark. Incubation time is approximately 38 days, the nesting period is 44 to 59 days. They usually have one to two young.</p> <p>The feeding of this species is centered mainly on live fish, catching fish of less than 1 kg. Ospreys rarely feed on dead fish or other animals, probably only under very adverse conditions (del Hoyo et al. 1994).</p>
<i>Tremarctos ornatus</i>	VU	NO	It is listed in Appendix I of	The altitudinal range of the Andean bear extends from	Little is known about the reproduction of this species;

			<p>CITES.</p> <p>It is a species distributed in the tropical Andes; however, its populations are being widely decimated, mainly due to habitat loss, illegal killing, illegal trade and climate change. The mountainous Andes are one of the regions most vulnerable to the effects of climate change, and all ecosystems inhabited by Andean anteaters are likely to exhibit major reductions in extent. Recent assessments in Ecuador show that anteaters are killed in retaliation against crop depredation, for cultural and</p>	<p>200 to 4,750 meters above sea level, with an area of occupancy covering approximately 260,000 km<sup>2</sup> throughout the tropical Andes.</p> <p>The species inhabits a wide variety of ecosystems throughout the tropical Andes, including tropical dry forests, lowland and montane tropical moist forests; tropical dry and moist scrublands; and tropical high-altitude scrublands and grasslands (García-Rangel 2012).</p>	<p>however, it is known that the female reaches maturity at 4 years of age, and it seems that the mating period is very short, between 5 and 6 days. Some authors mention that the mating season is around December and others that it is between April and June. Finally, it is known that gestation lasts 7 months and that they normally have only one calf per birth (Perez-Torres, 2001).</p> <p>The diet of the anteater is mainly composed of plant species and according to the study conducted by (Chero, 2017) it was identified that in Peru the anteater feeds on species such as <i>Puya sp</i>, <i>Guzmania sp</i>, <i>Chusquea sp</i> and <i>Vaccinium floribundum</i>. It also feeds extensively on fruits and seeds and performs an important ecological task as a seed disperser.</p>
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			medical beliefs, and for trade (Orejuela and Jorgenson 1999).		
<i>Boana platanera</i>	LC	NO		<p>It is a tree frog of the family Hylidae, with a distribution that extends from east-central Panama, the Andes, northern Colombia, much of Venezuela, and some Caribbean islands; in addition, it has been reported to be widely distributed in the Brazilian Atlantic Forest (AmphibiaWeb 2021).</p> <p>It is a species that inhabits shrub flora, is located in the grassland-forest and inside the forest (Acosta et al. 2006).</p>	<p>From the eggs of this species hatch tadpoles that in a few weeks undergo metamorphosis and leave the water. On the other hand, their diet is based on insects such as cockroaches, crickets, flies, worms, and butterflies.</p>

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