

Table S1 - Geographic locales included in this study, including the individuals sampled at each site, and the source of the biological material analyzed here.

Site Name (Region, Country)	No. of individuals	Sample IDs	Geographic (Lat/ Long)	Coordinates	Contact and/or Institution
British Columbia, Canada	3	Pco242, Pco258, Pco357	54.9,-124.5		LGD/NCI
Oregon, USA	1	Pco007	43.935833,-120.575		LGD/NCI
Idaho, USA	1	Pco340	43.7,-116		LGD/NCI
Yellowstone National Park, USA	2	Pco372, Pco377	44.460556,-110.827778		LGD/NCI
Texas, USA	4	Pco036, Pco037, Pco128, Pco356	25.833333,-93.516667		LGD/NCI
Florida, USA	2	Pco077, Pco348	24.5,-79.8		LGD/NCI
El Petén, Guatemala	2	Pco556, Pco446	16.9,-89.9		LGD/NCI
Northern Central Guatemala	1	Pco555	15.5,-90.25		LGD/NCI
Southern Guatemala	1	Pco557	15.5,-90.25		LGD/NCI
Granada, Nicaragua	1	Pco549	11.933333,-85.95		LGD/NCI
Chontales, Nicaragua	1	Pco550	12.083333,-85.4		LGD/NCI
Matagalpa, Nicaragua	1	Pco552	12.916667,-85.916667		LGD/NCI
Northern Nicaragua	2	Pco554, Pco551	12.904167,-84.921944		LGD/NCI
Nueva Guinea, Nicaragua	1	Pco553	11.683333,-84.45		LGD/NCI
Costa Rica	4	Pco545, Pco547, Pco548, Pco546	10,-84		LGD/NCI
Guanacaste, Costa Rica	1	Pco544	10.433333,-85.4		LGD/NCI
Darién, Panama	2	Pco541, Pco542	8.408333,-77.915		LGD/NCI
Falcón, Venezuela	2	Pco704, Pco703	8,-66		LGD/NCI
Barquisimeto, Venezuela	1	Pco705	10.066667,-69.316667		LGD/NCI
Tefé, AM, BR	1	bPco358	-3.353889,-64.710833		Diogo Faria/ CETAS/IBAMA/ Pró-Carnívoros
Presidente Figueiredo, AM, BR	1	bPco342	-2.017222,-60.025		Diogo Faria/ CETAS/IBAMA/ Pró-Carnívoros
Rio Preto da Eva, AM, BR	1	bPco343	-2.698889,-59.7		Diogo Faria/ CETAS/IBAMA/ Pró-Carnívoros
Antofagasta, Chile	1	Pco214	-24.616667,-69.533333		LGD/NCI
Vicuña, Chile	1	Pco208	-33,-71.516667		LGD/NCI
Ovalle, Chile	2	Pco207, Pco215	-30.6,-71.2		LGD/NCI
Mendoza, Argentina	3	Pco570, Pco573	-32.88,-69.00		LGD/NCI
Santiago, Chile/ Mendoza, Argentina	10	Pco201, Pco209, Pco210, Pco211, Pco212, Pco216, Pco217, Pco564, Pco570, Pco573	-33.073131,-70.059814		LGD/NCI
Angol/Coñaripe, Chile	1	Pco213	-32.653056,-70.011944		LGD/NCI
Villarica, Chile	1	Pco218	-39.266667,-72.216667		LGD/NCI
Torres Del Paine National Park, Chile	1	Pco200	-50.983056,-72.966389		LGD/NCI
Punta Arenas, Chile	1	Pco202	-53.15,-70.916667		LGD/NCI
Chubut, Argentina	1	Pco567	-45.8,-67.5333		LGD/NCI
La Pampa, Argentina	1	Pco565	-36.833333,-66		LGD/NCI
Cordoba, Argentina	1	Pco577	-31.416667,-64.183333		LGD/NCI
Northern Argentina	1	Pco562	-23.408333,-64.427778		LGD/NCI
Uruguay	2	Pco580, Pco582	-31.683333,-55.416667		LGD/NCI
Chaco, Paraguay	3	Pco699, Pco701, Pco581	-23.0,-58.0		LGD/NCI
Potosí, Bolivia	3	Pco706, Pco709, Pco710	-19.583333,-65.75		LGD/NCI
Santa Cruz, Bolivia	2	Pco707, Pco708	-17.8,-63.166667		LGD/NCI
Ponta Porã, MS, BR	2	bPco327, bPco039	-22.535833,-55.725833		Ronaldo Morato/

Jardim, MS, BR	2	bPco035, bPco040	-21.48,-56.137778	Pró-Carnívoros Ronaldo Morato/ Pró-Carnívoros
Miranda, MS, BR	3	bPco063, bPco064, bPco062	-20.240833,-56.377778	Fernando Azevedo/ Projeto Gadonça
Corumbá, MS, BR	2	bPco037, bPco038	-19.008889,-57.652778	Ronaldo Morato/ Pró-Carnívoros
Corguinho, MS, BR	1	bPco326	-19.831944,-54.828889	Roberta Humberg/ CRAS
Barão de Melgaço, MT, BR	11	bPco024, bPco025, bPco029, bPco031, bPco032, bPco026, bPco027, bPco028, bPco030, bPco033, bPco036	-16.278889,-55.957778	Rodrigo Jorge/ Pró-Carnívoros
Alta Floresta, MT, BR	1	bPco041	-9.875556,-56.086111	Fernanda Michalski /Pró-Carnívoros
Santarém, PA, BR	1	bPco082	-2.442778,-54.707778	Glauca Pontes
Guaramiranga, CE, BR	1	bPco069	-4.262778,-38.932778	Marcos Renato Mattos
Quixeramobim, CE, BR	1	bPco070	-5.198889,-39.292778	Marcos Renato Mattos
Campina Grande, PB, BR	1	Pco700	-7.230556,-35.881111	LGD/NCI
Araguaína, TO, BR	1	Pco601	-7.190833,-48.206944	LGD/NCI
São Geraldo Araguaia, PA	1	bPco346	-6.400833,-48.555	Joares May/ Inst. Biotrópicos
Araguaia, GO, BR	1	Pco697	-13.275,-50.162778	LGD/NCI
Chapada Gaúcha, MG, BR	2	bPco337; bPco338	-15.305833,-45.617778	Joares May, Edsel Amorim Jr/ Inst. Biotrópicos
Luziânia, GO, BR	1	bPco333	-16.318611,-47.78	COFAU
Goiás, BR	2	bPco316; Pco602	-15.933889,-50.14	Ivaldo M. Carvalho/ Pró-Carnívoros; LGD/NCI
Bataguassu, MS, BR	1	bPco001	-21.713889,-52.421944	Projeto Porto Primavera
MS, BR	1	bPco019	-20.442778,-54.645833	Pró-Carnívoros
Anaurilândia, MS, BR	16	bPco020, bPco021, bPco022, bPco023, bPco044, bPco045, bPco046, bPco047, bPco048, bPco049, bPco054, bPco056, bPco057, bPco058, bPco059, bPco067,	-22.187778,-52.717778	Dênis Sana/ Pró- Carnívoros
Batayporã, MS, BR	2	bPco043, Pco712	-22.295,-53.270833	Dênis Sana/ Pró-Carnívoros/ LGD/NCI
Ivinhema, MS, BR	7	bPco050, bPco051, bPco052, bPco053, bPco055, bPco060, bPco066	-22.305,-53.815	Dênis Sana/ Pró-Carnívoros
Ilha Solteira, SP, BR	2	bPco319, bPco320	-20.432778,-51.342778	Rodrigo Jorge/ Pró-Carnívoros
Porto Primavera, MS, BR	2	bPco002, Pco702	-22.58,-53.058889	LGD/NCI
Bataguassu, MS, BR	1	bPco042	-21.713889,-52.421944	Dênis Sana/ Pró-Carnívoros
Parque Nacional do Monte Pascoal, Porto Seguro, BA, BR	1	bPco349	-16.45,-39.065	Sandra Becker
Centralina, MG, BR	1	bPco071	-18.583889,-49.198889	Frederico Genésio Lemos and Hugo C. M. Costa
P. E. Cantareira, SP, BR	1	bPco034	-23.318889,-46.586944	Pró-Carnívoros
Extrema, MG, BR	1	bPco331	-22.855,-46.317778	Pró-Carnívoros
Getulina, SP, BR	1	bPco351	-21.798889,-49.928889	Alexandre Vogliotti and Javier A. /NUPECCE
Cananéia, SP, BR	1	bPco014	-25.015,-47.926944	Fábio Olmos
Análândia, SP, BR	2	bPco317, Pco dot-d25	-22.125833,-47.662778	Renata Miotto/ UFSCar

Rio Claro/Iracemópolis, SP, BR	1	Pco dot-d23	-22.540278,-47.593611	Renata Miotto/ UFSCar
Paulínia, SP, BR	1	Pco dot-d45	-22.761111,-47.154167	Renata Miotto/ UFSCar
Sertãozinho, SP, BR	1	Pco dot-d51	-21.198611,-48.170278	Renata Miotto/ UFSCar
Northwestern SP, BR	1	Pco599	-20.512778,-50.351944	LGD/NCI
Ribeirão Branco, SP, BR	1	bPco318	-24.220833,-48.765833	Ronaldo Morato/ Pró-Carnívoros
Itapetininga, SP, BR	1	bPco302	-23.591944,-48.052778	Ronaldo Morato/ Pró-Carnívoros
Ribeirão Preto, SP, BR	1	bPco332	-21.177778,-47.81	Jorge Bin/ Pró-Carnívoros
Itirapina, SP, BR	1	Pco dot-d29	-22.240556,-47.806667	Renata Miotto/ UFSCar
Itirapina, SP, BR	1	Pco dot-d99	-22.351944,-47.915278	Renata Miotto/ UFSCar
Matão, SP, BR	1	Pco dot-d42	-21.585833,-48.446944	Renata Miotto/ UFSCar
Catanduva, SP, BR	1	Pco dot-d43	-21.142222,-49.00833	Renata Miotto/ UFSCar
Cajuru, SP, BR	1	Pco dot-d44	-21.17,-47.294167	Renata Miotto/ UFSCar
Araraquara, SP, BR	1	Pco dot-d70	-21.736389,-48.170278	Renata Miotto/ UFSCar
Ibirarema, SP, BR	1	bPco315	-22.817778,-50.072778	Elizeu P. Ribeiro/ IBAMA
Londrina, PR, BR	1	bPco080	-23.31,-51.162778	Fernando Jerep
Blumenau, SC, BR	2	PC26cc, PC27cc	-26.908889,-49.072222	Camila S. Castilho/ Projeto Leão Baio
Lages, SC, BR	6	PC08cc, PC10cc, PC15cc, PC18cc, PC19cc, PC23cc	-27.815833,-50.325833	Camila S. Castilho/ Projeto Leão Baio
Ponta Alta, SC, BR	1	PC11cc	-27.484167,-50.380278	Camila S. Castilho/ Projeto Leão Baio
São Joaquim, SC, BR	2	PC20cc, PC49cc	-28.293889,-49.931667	Camila S. Castilho/ Projeto Leão Baio
Urubici, SC, BR	6	PC01cc, PC03cc, PC04cc, PC06cc, PC07cc, PC22cc	-28.015000,-49.591667	Camila S. Castilho/ Projeto Leão Baio

USA= United States of America, BR= Brazil, AM= Amazonas State, BA= Bahia State, CE= Ceará State, GO= Goiás State, MG= Minas Gerais State, MS= Mato Grosso do Sul State, MT= Mato Grosso State, PA= Pará State, PB= Paraíba State, PR= Paraná State, SC= Santa Catarina State, SP= São Paulo State. LGD/NCI: Laboratory of Genomic Diversity, National Cancer Institute, USA; CETAS: Centro de Triagem de Animais Silvestres; COFAU: Coordenação de Proteção de Espécies da Fauna; CRAS: Centro de Reabilitação de Animais Silvestres; IBAMA: Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis; NUPECCE: Núcleo de Pesquisa e Conservação em Cervídeos.