

**Figure S1.** Occurrence point of species of agro-extravist interest in the Alto Rio Pardo Territory, Minas Gerais, Brazil.

**Table S1.** List and description of environmental variables used in species distribution modeling.

Code	Variable	Group	Description	Source
Bio1	Average annual temperature	Temperature	Temperature directly or indirectly influences the individual metabolism of ectothermic organisms and plants, increasing metabolism by accelerating biological processes as temperature increases (Sevilha, 2016). The average temperature is higher south of the TCARP, reaching 23.5°C, a region in the geomorphological unit characterized as a dissected depression. In the north of the territory, an area characterized by plateau, the average temperature drops, with 17.8 °C and 22.2 °C.	<a href="http://worldcli m.org/version2">http://worldcli m.org/version2</a>
Bio2	Average daytime variation in	Temperature	The code Bio2 represents the variation in temperature during the day. There is	<a href="http://worldcli m.org/version2">http://worldcli m.org/version2</a>

	temperature (monthly average (Tmax-Tmin))		a temperature variation gradient from north to south of the territory. The gradient of the temperature variation of 14.1 °C in the north to 11 °C in the south.
Bio3	Isothermality ((bio2/bio7) (* 100))	Temperature	<p>The code Bio3 represents the regions with more significant maintenance of temperature concerning its amplitude.</p> <p>The northwest region of the territory has greater isothermality with a well-defined gradient towards the southeast of the territory.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Bio4	Temperature seasonality (standard deviation of annual temperature variation * 100)	Temperature	<p>The code Bio4 represents the seasonal variation in temperature related to the annual standard deviation. The effects of temperature seasonality are more expressive in the south of the territory.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Bio5	Maximum temperature of the hottest month	Temperature	<p>The maximum temperatures are usually registered in the afternoon period of the day, which can change the physiological conditions of the plants, influencing their growth and development. In the territory, the maximum temperatures are registered in the first quarter of the year. On average, specifically in February, with a maximum of 32.2 °C in the south of the territory.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Bio6	Minimum temperature of the coldest month	Temperature	<p>Minimum temperature values are recorded during the night period. It is indicative of conditions that may require an adaptive response from plants (Sevilha, 2016). At TCARP, the lowest minimum temperature records are found in the southwest, reaching 9.7 °C in the coldest month.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Bio7	Annual thermal range (bio5-bio6)	Temperature	<p>It represents the difference of the maximum temperature concerning the minimum temperature of the year, that is, the thermal amplitude. There is a strong relationship between thermal amplitude and diurnal temperature variation, with the same gradient, with greater amplitudes in the south of the</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>

			territory (19.1 °C) and smaller amplitude values in the north (14.6 °C).
Bio8	Average temperature of the wettest quarter	Temperature	<p>It indicates a summer condition when there is a more significant respiration activity and metabolism by plants associated with water availability (Sevilha 2016). The average temperature is higher south of the TCARP, reaching 24.8 °C, a region in the geomorphological unit characterized as a dissected depression. The average temperature drops in the north of the territory, with a value close to 19 °C. Plateau characterizes this area in the north.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Bio9	Average temperature of the driest quarter	Temperature	<p>It indicates the climatic condition when there is a reduction in plant respiration and metabolism, driven by the dry period (Sevilha, 2016). The driest quarter corresponds to the third quarter of the year, between July and September. In TCARP, the highest values are found in the south, reaching 20.8 °C. In contrast, in the higher altitude areas located in the plateau, the temperature is reduced, reaching a minimum of 15.7 °C.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Bio10	Average temperature of the hottest quarter	Temperature	<p>The warmer quarter promotes greater respiration and metabolism activity, corresponding to the wetter quarter, with more significant plant growth and development. At TCARP, the warmest quarter has higher temperatures to the south (25.2 °C), reducing the temperature in the higher areas located in the plateau.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Bio11	Average temperature of the coldest quarter	Temperature	<p>Indicates lower respiratory activity and plant metabolism, corresponding to the winter and dry period of the year (Sevilha, 2016). The highest values are located in the southern region of the TCARP, with an average temperature of up to 20.8 °C, with the coldest areas in the plateau with higher altitudes, with</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>

			average minimum values reaching 15.5 °C.
Bio12	Annual precipitation	Precipitation	<p>It is related to soil water availability for plants and atmospheric moisture. In the TCARP, the lowest average precipitation values are found in the northern region, with a minimum recorded in the northeastern portion with about 690 mm per year, a region with phyto-physiognomies in transition to the Caatinga biome. Conversely, the highest values are found in the southwest region of the territory, with the highest average precipitation values reaching 1009 mm per year.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Bio13	Precipitation of the wettest month	Precipitation	<p>According to the annual precipitation, it is related to water availability in the soil for plants and atmospheric humidity. Still, it refers to a period of high-water availability, favoring the growth and development of plants. December has the highest rainfall in TCARP, with higher values recorded in the eastern region and lower values in the northeastern region.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Bio14	Precipitation of the driest month	Precipitation	<p>The maximum values of this variable represent less stressful conditions regarding water availability (Sevilha, 2016). In TCARP, the precipitation of the driest month is registered in the highest portions, specifically in the plateau, reaching 35 mm. In the southern parts located in the dissected valleys and depressions, the drought is more pronounced without precipitation records.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Bio15	Precipitation seasonality (coefficient of variation)	Precipitation	<p>The precipitation seasonality is represented by the coefficient of variation of rainfall records, where higher values represent greater amplitude or dispersion of the minimum and maximum values concerning the average. Lower values mean better rainfall distribution throughout the year,</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>



			that is greater water availability over long periods. The higher values represent more severe periods of drought throughout the year, in which species need more remarkable plasticity for these environments. In the TCARP, the precipitation seasonality of precipitation is observed, with restricted regions to the east with the lowest seasonality values.
Bio16	Precipitation of the wettest quarter	Precipitation	<p>The variable represents conditions close to the wettest month variable. In TCARP, the fourth quarter is the wettest, with the highest precipitation values in November and December. The highest precipitation values in this quarter are found in the southwest region, with maximum values that can reach 589 mm.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Bio17	Precipitation of the driest quarter	Precipitation	<p>The maximum values indicate less stressful conditions regarding water availability during the winter period. In TCARP, the highest values are found in restricted locations in the southeastern portion, with values that can reach 56 mm.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Bio18	Precipitation from the warmest quarter	Precipitation	<p>In the TCARP, the precipitation of the warmest quarter is more pronounced in the east (388 mm), with lower precipitation values in the northeast region of the territory, which can reach a minimum of 235 mm. In the northeast region, there is a transition trend towards phyto-physiognomies of the Caatinga biome.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Bio19	Precipitation from the coldest quarter	Precipitation	<p>The maximum values indicate less stressful conditions in terms of water availability during the winter (Sevilha, 2016). In TCARP, a small portion located in the extreme east has higher precipitation values, reaching 63 mm.</p> <p><a href="http://worldclim.org/version2">http://worldclim.org/version2</a></p>
Altitude	Digital Elevation Model (DEM)	Topographic	<p>Altitude is related to temperature and precipitation. In general, the higher regions have mild temperatures and</p> <p><a href="https://www2.jpl.nasa.gov/srtm/">https://www2.jpl.nasa.gov/srtm/</a></p>

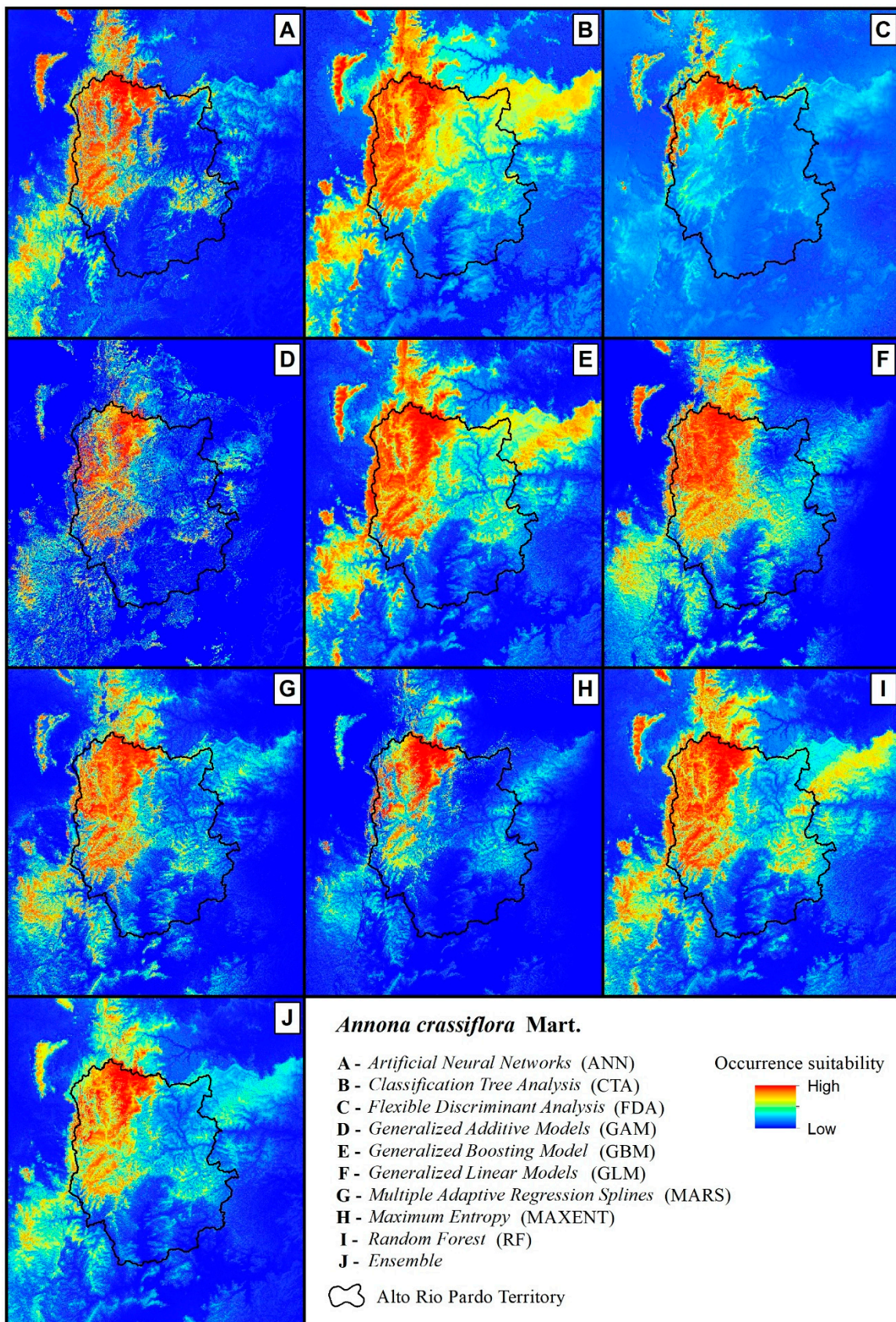
			<p>higher precipitation when compared to lower altitude regions. The TCARP has an increased altitude range, with a maximum value of 1,768 m to the east, specifically in the Serra do Espraço, and a lower value registered to the south, with 336 m in the lower portion of the geomorphological unit characterized as a dissected depression.</p>	
Declivity	Declivity in degrees	Topographic	<p>In TCARP, the slope has a strong relationship with the use of land. The flat or gently undulating areas can be mechanized, in general, on top of the plateau primarily occupied by silviculture, which naturally was settled mainly in the Cerrado in a restricted sense. On the other hand, in the fluvial plains inserted between the plateau they are flat areas characterized by the multiple-use associated with traditional communities.</p>	Derivative of DEM
Aspect	Strand Direction	Topographic	<p>In landscapes with expressive relief, the availability of light and shading is strongly related to the topographic position (the aspect of the soil or direction of the slopes) (Chapin, Matson, Mooney 2002), to interfere with incident radiation and soil moisture, consequently in the composition/occurrence of plant species.</p>	Derivative of DEM
Minimum curvature	Minimum ground curvature	Topographic	<p>It represents the minimum convexity of the cross-section (Evans 1980), corresponding to the minor local curvature in any direction.</p>	Derivative of DEM

Espécie	Algoritmo	TSS	TSS (sd)	AUC	AUC (sd)
<i>Annona crassiflora</i>	ANN	0.65	0.09	0.85	0.05
	CTA	0.55	0.14	0.79	0.08
	FDA	0.60	0.09	0.84	0.05
	GAM	0.61	0.11	0.84	0.06
	GBM	0.69	0.10	0.87	0.05
	GLM	0.67	0.09	0.87	0.04
	MAXENT	0.68	0.10	0.87	0.05
	MARS	0.63	0.10	0.85	0.05
	RF	0.73	0.09	0.88	0.04
<i>Caryocar brasiliense</i>	ANN	0.80	0.02	0.95	0.01
	CTA	0.69	0.06	0.87	0.04
	FDA	0.73	0.04	0.93	0.02
	GAM	0.80	0.02	0.95	0.01
	GBM	0.78	0.04	0.94	0.01
	GLM	0.76	0.03	0.94	0.01
	MAXENT	0.66	0.04	0.89	0.02
	MARS	0.76	0.04	0.94	0.01
	RF	0.78	0.04	0.95	0.01
<i>Eugenia dysenterica</i>	ANN	0.75	0.05	0.91	0.03
	CTA	0.60	0.10	0.82	0.05
	FDA	0.67	0.06	0.89	0.02
	GAM	0.70	0.03	0.90	0.02
	GBM	0.72	0.07	0.91	0.03
	GLM	0.77	0.05	0.92	0.02
	MAXENT	0.62	0.10	0.86	0.05
	MARS	0.74	0.06	0.91	0.02
	RF	0.74	0.06	0.92	0.03
<i>Hancornia speciosa</i>	ANN	0.62	0.06	0.85	0.03
	CTA	0.50	0.14	0.77	0.09
	FDA	0.62	0.07	0.85	0.04
	GAM	0.53	0.07	0.80	0.04
	GBM	0.61	0.08	0.85	0.03
	GLM	0.63	0.06	0.87	0.02
	MAXENT	0.61	0.14	0.85	0.08
	MARS	0.61	0.06	0.86	0.03
	RF	0.62	0.06	0.86	0.03
<i>Annona crassiflora</i>	ANN	0.72	0.10	0.89	0.05
	CTA	0.53	0.15	0.76	0.08
	FDA	0.71	0.08	0.90	0.04
	GAM	0.50	0.13	0.75	0.07
	GBM	0.67	0.16	0.86	0.09
	GLM	0.81	0.05	0.94	0.03
	MAXENT	0.78	0.06	0.94	0.03
	MARS	0.76	0.07	0.92	0.03
	RF	0.74	0.13	0.90	0.06

TSS = True Skill Statistic; TSS (sd) = standard deviation for TSS; AUC = Area under the curve; AUC (sd) = standard deviation for AUC; ANN = Artificial Neural Networks; CTA = Classification Tree Analysis; FDA = Flexible Discriminant Analysis; GAM = Generalized Additive Model; GBM = Generalized Boosting Model; GLM = Generalized Linear Models; MAXENT = Maximum Entropy; MARS = Multiple Adaptive Regression Splines; RF = Random Forest.

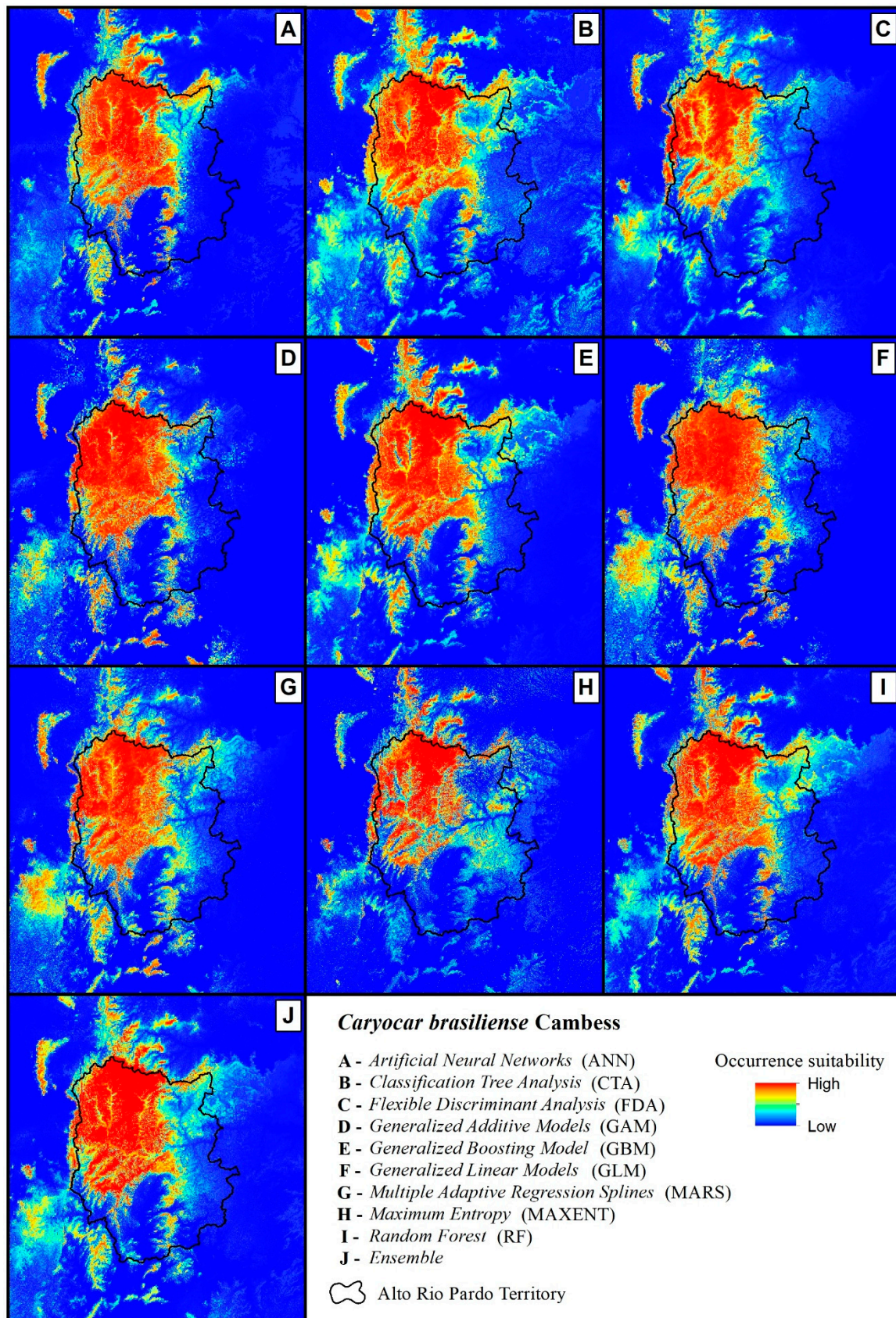
**Figure S2.** Accuracy metrics of the algorithms used in the final modeling of the distribution of species of agro-extractivist interest (MDS). In the Geraizeiras communities of the Cidadania Alto Rio Pardo Territory (TCARP), Minas Gerais.





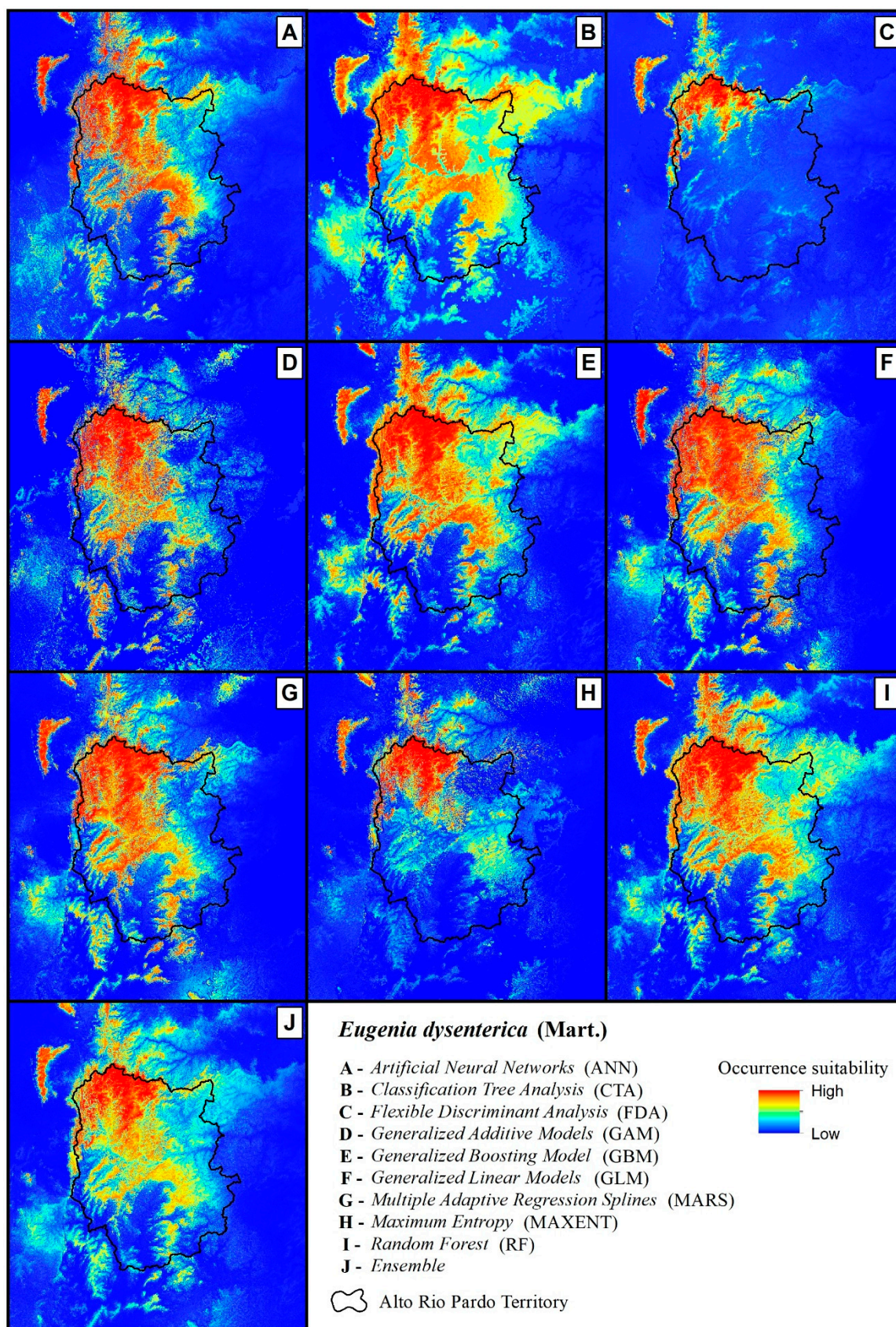
**Figure S3.** Occurrence suitability models by the algorithm for *Annona crassiflora* Mart. specie in the Alto Rio Pardo Territory, Minas Gerais, Brazil.





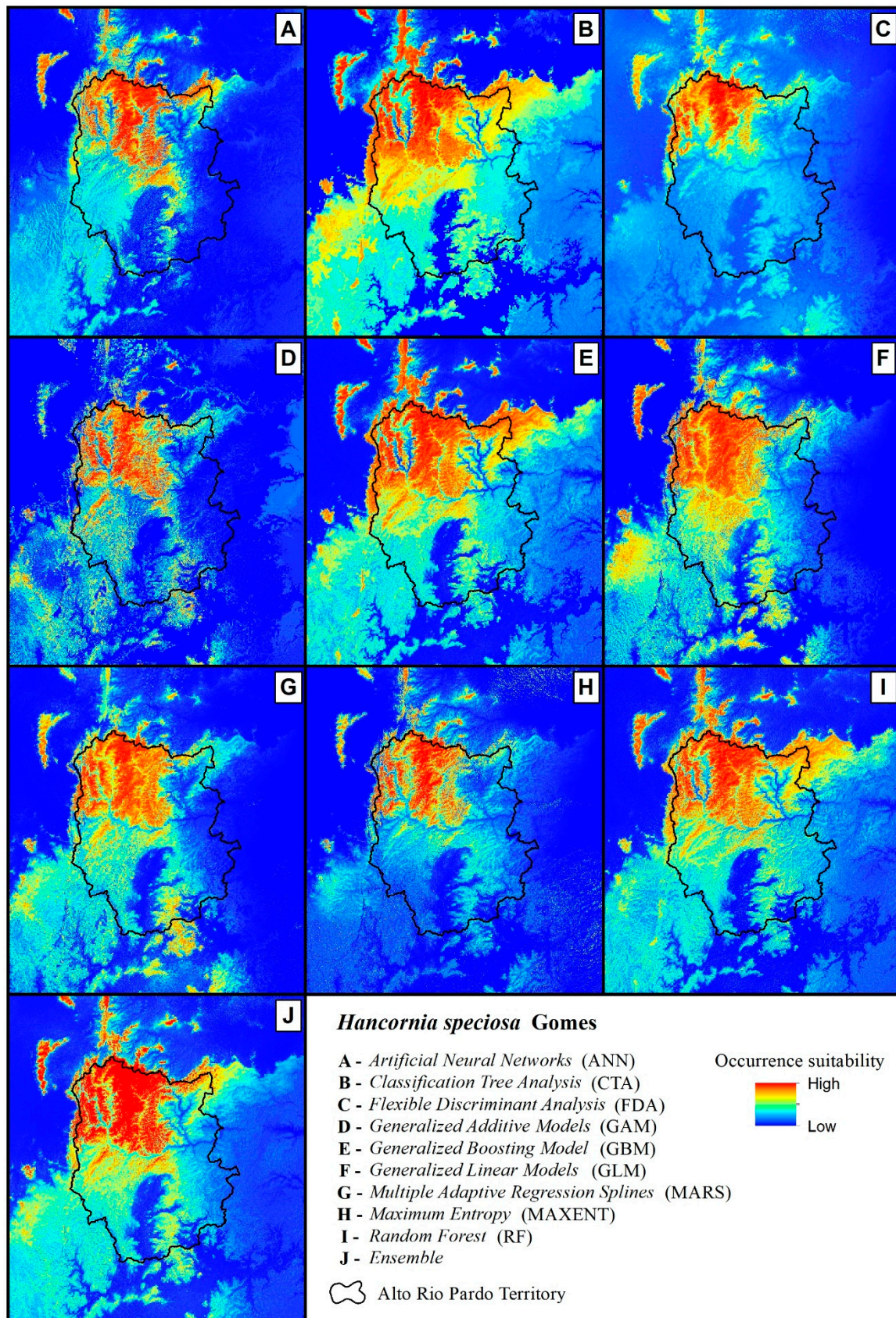
**Figure S4.** Occurrence suitability models by the algorithm for *Caryocar Brasiliense* Cambess specie in the Alto Rio Pardo Territory, Minas Gerais, Brazil.





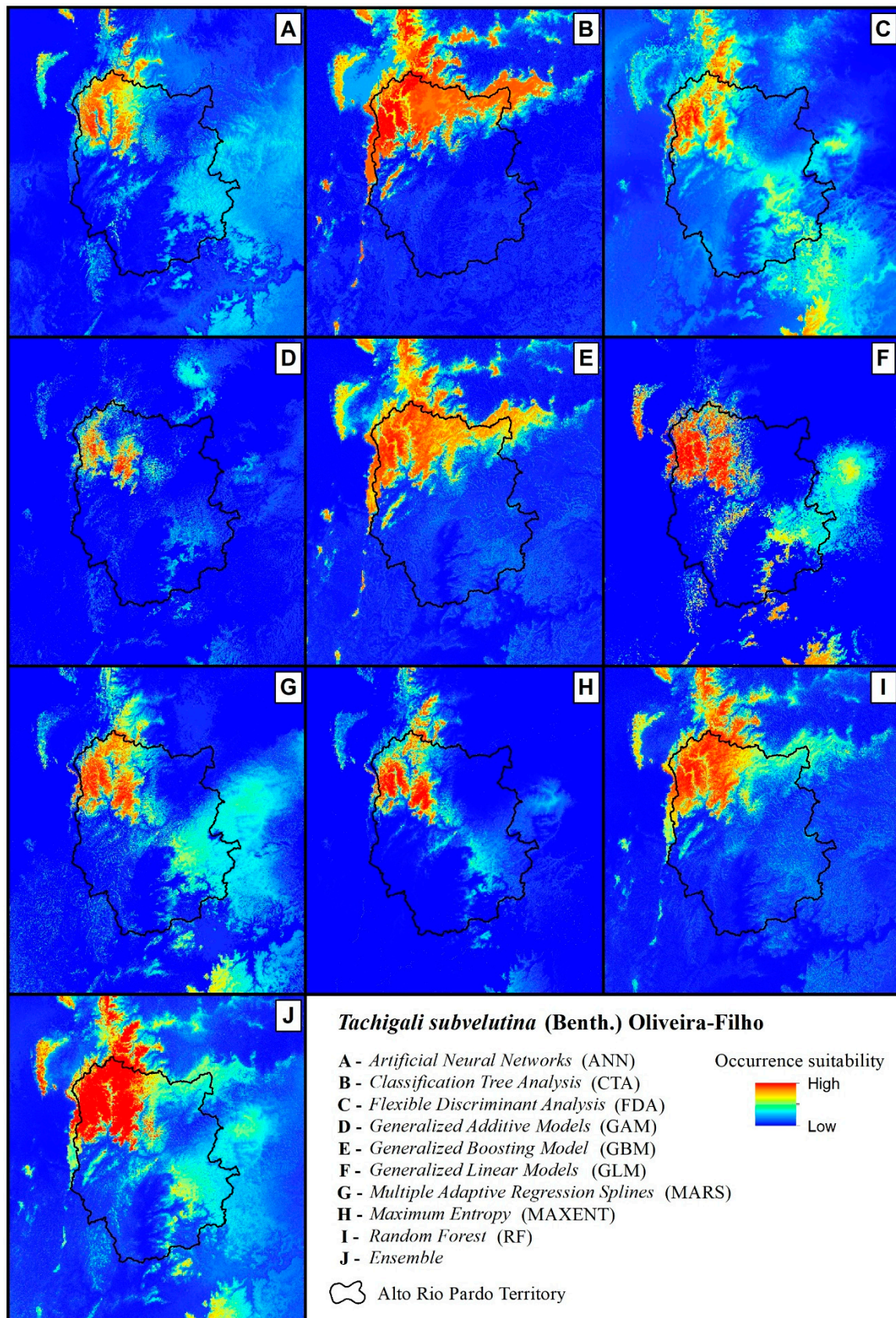
**Figure S5.** Occurrence suitability models by the algorithm for *Eugenia dysenterica* (Mart.) specie in the Alto Rio Pardo Territory, Minas Gerais, Brazil.





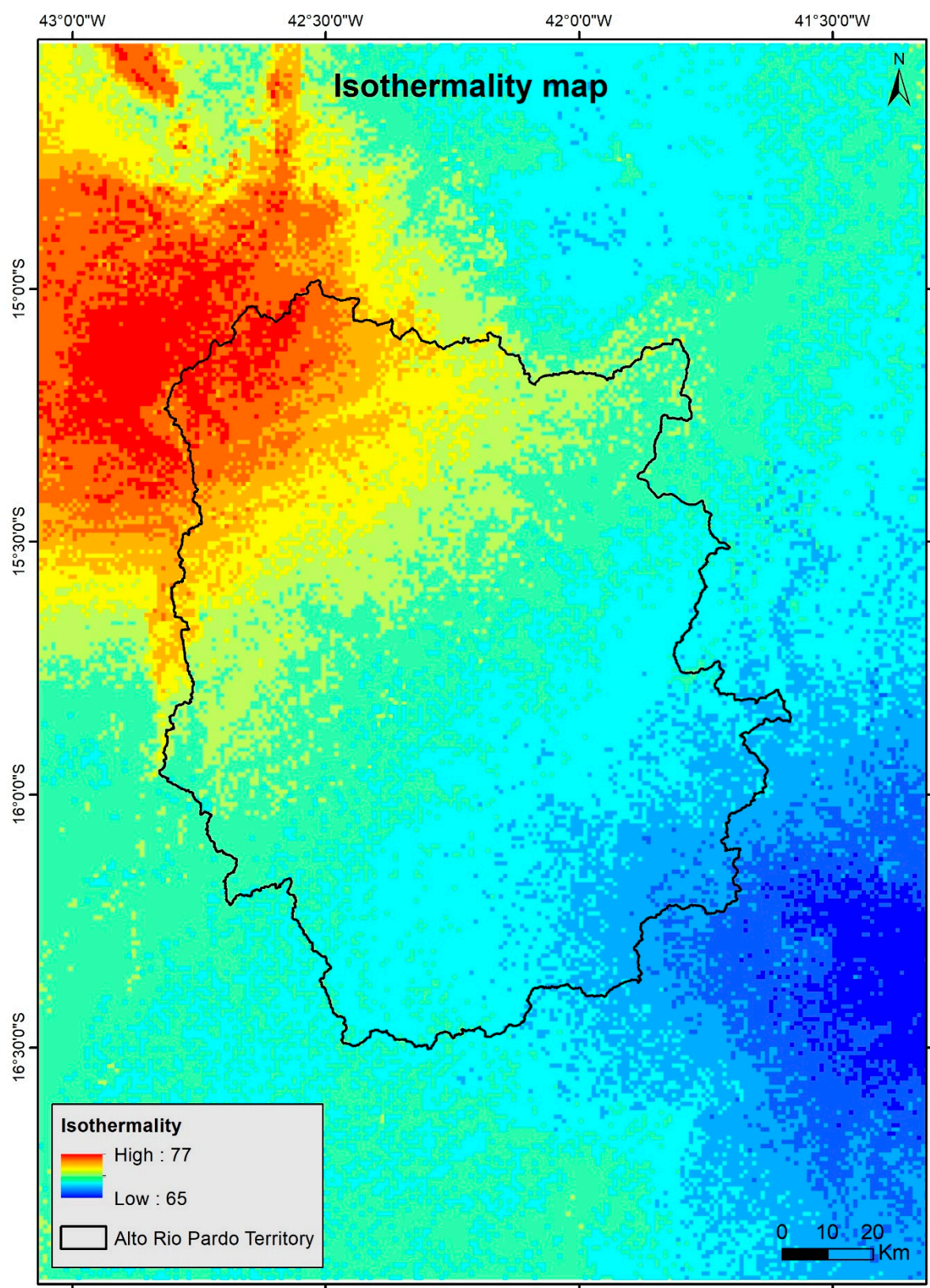
**Figure S6.** Occurrence suitability models by the algorithm for *Hancornia speciosa* Gomes specie in the Alto Rio Pardo Territory, Minas Gerais, Brazil.





**Figure S7.** Occurrence suitability models by the algorithm for *Tachigali subvelutina* (Benth.) Oliveira-Filho specie in the Alto Rio Pardo Territory, Minas Gerais, Brazil.





**Figure S8.** Isothermality map in the Alto Rio Pardo Territory, Minas Gerais, Brazil (Hijmans et al. 2005).