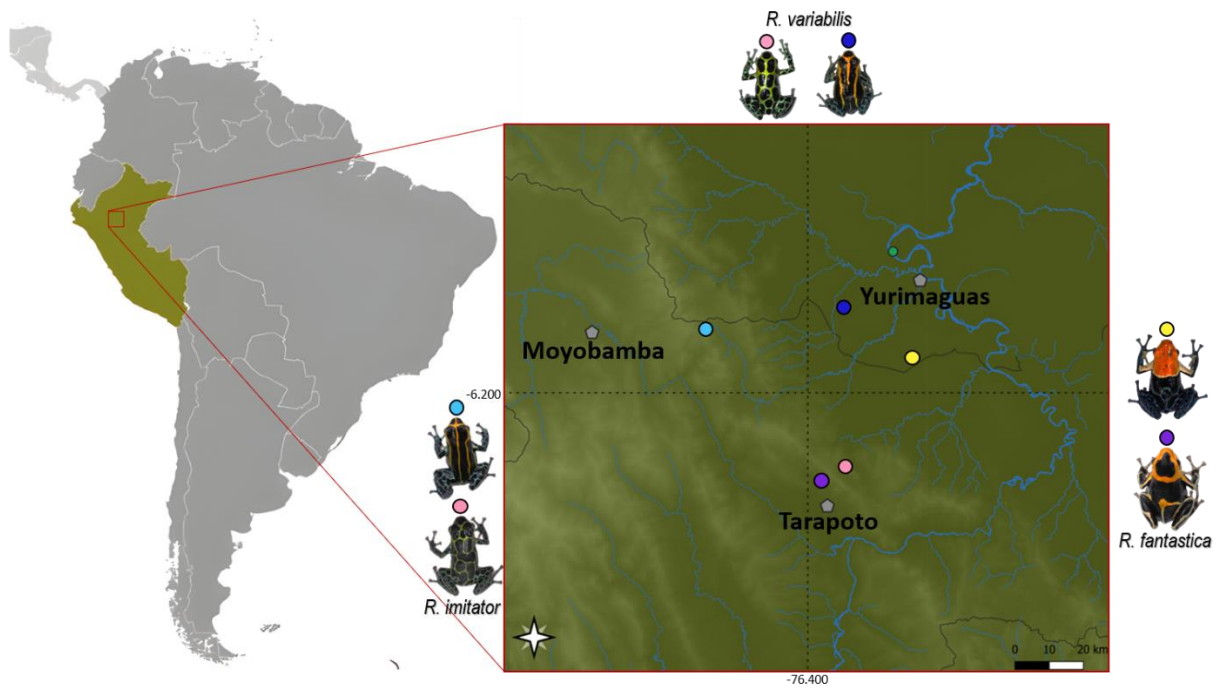




Supplementary Figure 1. Distribution map of studied species in the region of San Martin and Loreto, Northern Peru, with locality names/ecotypes (Locality name: Purple: Boca-Toma, Yellow: Michaela, Pink: San-Jose, Blue: Varadero, Light-Blue: Varadero-Banda). Pictures and figure composition by Ugo Lorient-Chevalier. Map source: Diva-GIS 18 July 2014. ULC took the frogs pictures.

Supplementary Table 1. Prezygotic barriers: Individual phenotypic preference. Summary of data and results of the nonparametric Wilcoxon signed rank test for the 3 species (*R. variabilis*, *R. imitator* and *R. fantastica*).

Species	<i>R. variabilis</i>		<i>R. imitator</i>		<i>R. fantastica</i>	
Wilcoxon Signed Rank Test	Spotted	Striped	Spotted	Striped	Nominal	Banded
Number of values	11	16	5	15	14	8
Mean	0,409	0,688	0,300	0,833	0,679	0,188
Std. Deviation	0,437	0,359	0,447	0,309	0,373	0,372
Actual median	0,5	0,75	0	1	0,75	0
H0: Does the actual median differ from the theoretical median						
Theoretical median (0.5 = no preference)	0,5	0,5	0,5	0,5	0,5	0,5
P value (two tailed)	0,530	0,066	0,424	0,005	0,110	0,073
Significant (alpha=0.05)?	No	No	No	Yes	No	No
Theoretical median (0 = Heterotypic preference)	0	0	0	0	0	0
P value (two tailed)	0,032	0,001	0,500	0,001	0,002	0,500
Significant (alpha=0.05)?	Yes	Yes	No	Yes	Yes	No
Theoretical median (1 = Homotypic preference)	1	1	1	1	1	1
P value (two tailed)	0,012	0,010	0,089	0,089	0,018	0,015
Significant (alpha=0.05)?	Yes	Yes	No	No	Yes	Yes

Supplementary table 2. Summary statistics for development time showing the results of the Kruskal-Wallis test and the nonparametric Wilcoxon test for each species (*R. imitator*, *R. variabilis* and *R. fantastica*) and between each pair.

Species		<i>R. imitator</i>		
Cross		Striped	Spotted	Hybrid
Mean_development_days		84,76	77,36	67,25
Number of value		72	69,5	65,5
Median		81	82	76
Kruskal-wallis test				
P value		0,00447		
Statistic		10,8		
Df		2		
Wilcoxon test				
P value		Striped	Spotted	Hybrid
Striped		X		
Spotted		0,3033	X	
Hybrid		0,0321	0,0011	X
Species		<i>R. variabilis</i>		
Cross		Striped	Spotted	Hybrid
Mean_development_days		76,7	78,62	75,33
Number of value		69	74	70,5
Median		136	127	130
Kruskal-wallis test				
P value		0,203		
Statistic		3,19		
Df		2		
Wilcoxon test				
P value		Striped	Spotted	Hybrid
Striped		X		
Spotted		0,092	X	
Hybrid		0,59	0,192	X
Species		<i>R. fantastica</i>		
Cross		Nominal	Banded	Hybrid
Mean_development_days		77,08	89,77	82,19
Number of value		90	95	161
Median		74,5	79	77
Kruskal-wallis test				
P value		0,109		
Statistic		4,44		
Df		2		
Wilcoxon test				
P value		Nominal	Banded	Hybrid
Nominal		X		
Banded		0,059	X	
Hybrid		0,078	0,535	X

Supplementary Table 3. Summary statistics for the survival rate from egg to tadpoles in crossbreed, presenting group means, and their associated p-value. “N.S” for non-significant difference in mean, and bold values when mean was significantly different from controls (in *R. fantastica*: Nominal, Spotted and Hybrid). Only the highest associated p-value is shown.

Species	<i>R. variabilis</i>			
Cross	Striped	Spotted	Hybrid	♂F1 x ♀F1
Mean survival	0.833	0.838	0.806	0.838
Highest associated P Value	N.S	N.S	N.S	N.S
Cross	♂F1 x ♀Spotted	♀F1 x ♂Spotted	♂F1 x ♀Striped	♀F1 x ♂Striped
Mean survival	0.785	0.877	0.835	0.862
Highest associated P Value	N.S	N.S	N.S	N.S
Species	<i>R. imitator</i>			
Cross	Striped	Spotted	Hybrid	♂F1 x ♀F1
Mean survival	0.691	0.663	0.669	0.755
Highest associated P Value	N.S	N.S	N.S	N.S
Cross	♂F1 x ♀Spotted	♀F1 x ♂Spotted	♂F1 x ♀Striped	♀F1 x ♂Striped
Mean survival	0.618	0.771	0.659	0.673
Highest associated P Value	N.S	N.S	N.S	N.S
Species	<i>R. fantastica</i>			
Cross	Nominal	Banded	Hybrid	♂F1 x ♀F1
Mean survival	0.739	0.766	0.789	0
Highest associated P Value	N.S	N.S	N.S	3.056e-19
Cross	♂F1 x ♀Banded	♀F1 x ♂Banded	♂F1 x ♀Nominal	♀F1 x ♂Nominal
Mean survival	0	0.549	0	0.709
Highest associated P Value	3.561e-12	N.S	3.561e-12	N.S