

A multi-scale approach to study palm-weevils in a tropical agroecosystem; Landscape Ecology; Aymer Andrés Vásquez-Ordóñez, Wilmar Torres-López, and A. Carolina Monmany-Garzia; Universidad del Valle, Departamento de Biología. C.P. 25360 Cali, Valle del Cauca, Colombia. Present address: Instituto de Ecología, Universidad Nacional Autónoma de México, Circuito exterior s/n anexo al Jardín Botánico, Ciudad Universitaria, C.P.04500, Ciudad de México, Mexico. Correspondence: vasquezaymer@ieecologia.unam.mx.

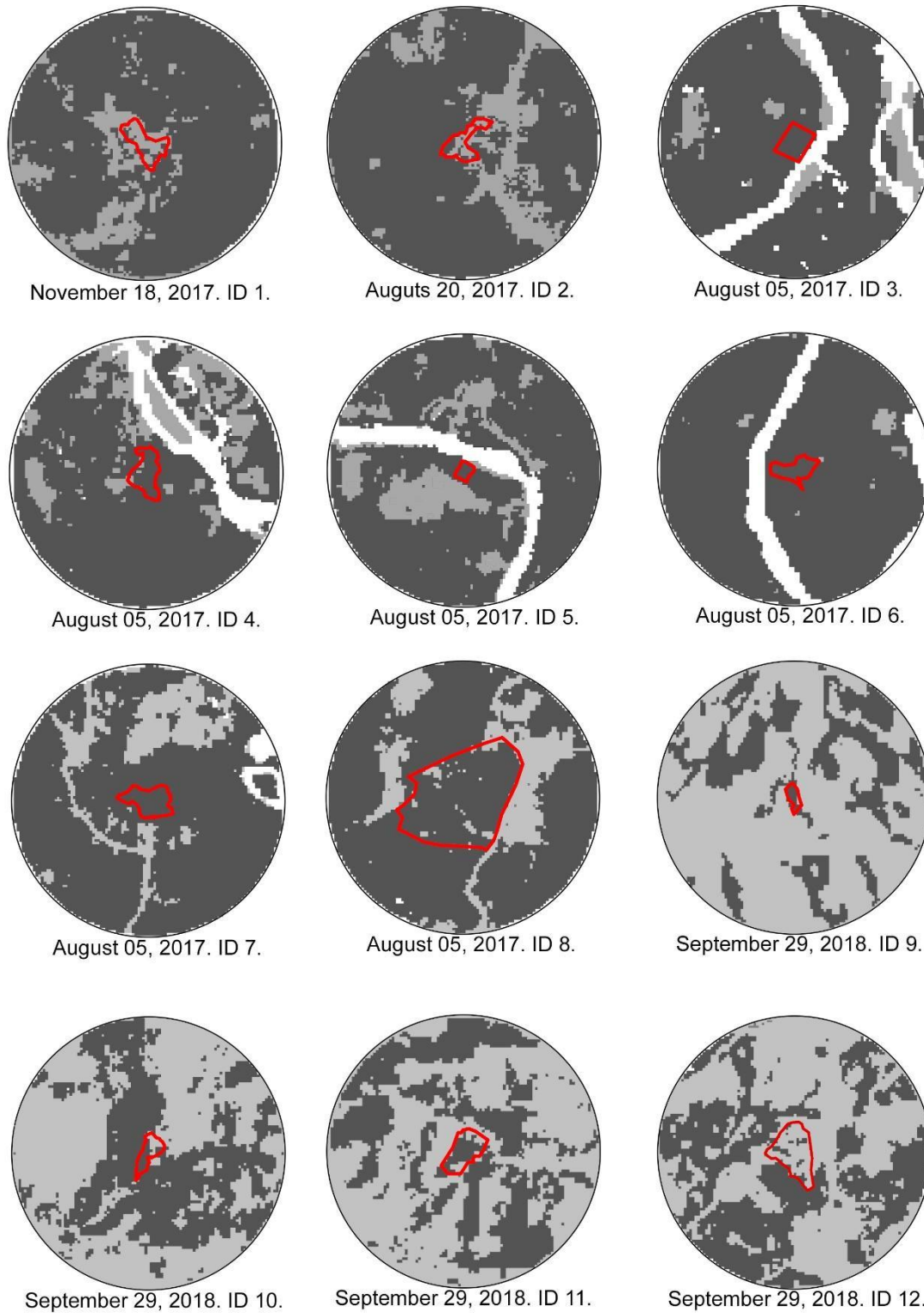
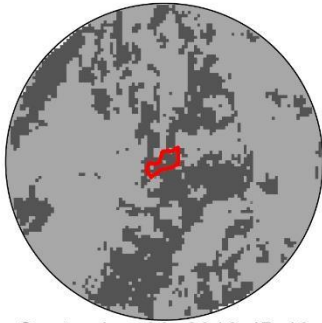
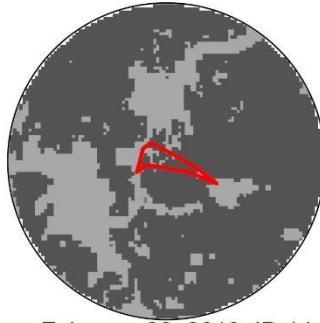


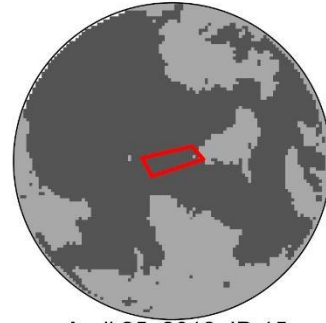
Fig. S1 1 km circular buffers around each of the 32 production sites of the peach palm crops in Colombia. Forest cover: dark gray pixels, No Forest: light gray pixels, Water: white pixels, Crop: red polygon. The dates of the satellite images and the ID location (Table S1) are indicated.



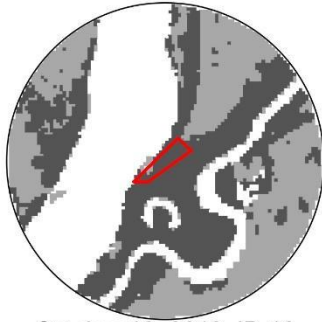
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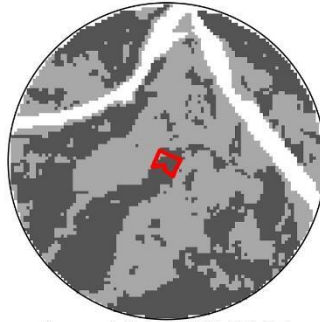
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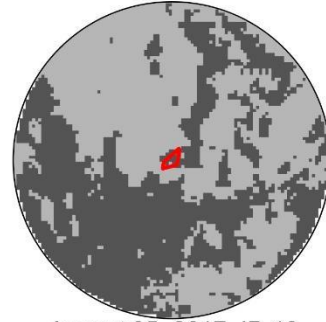
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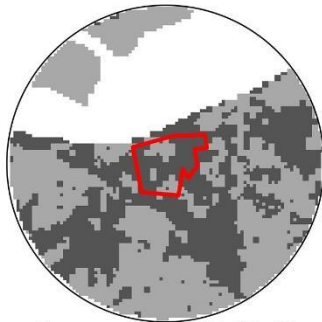
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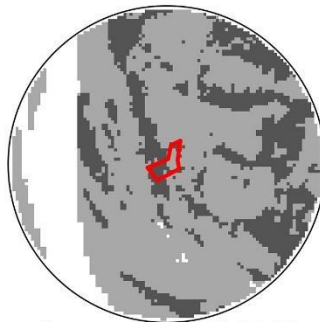
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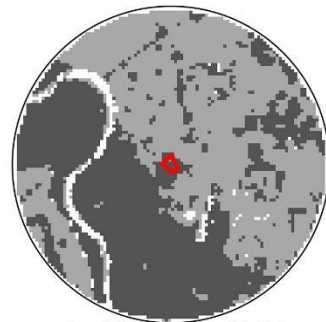
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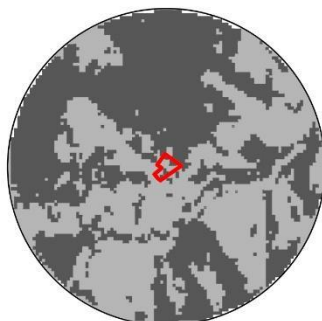
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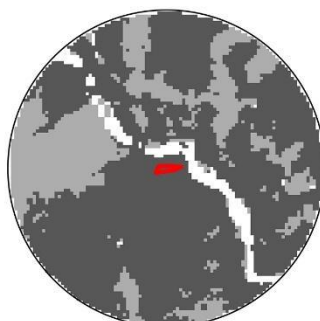
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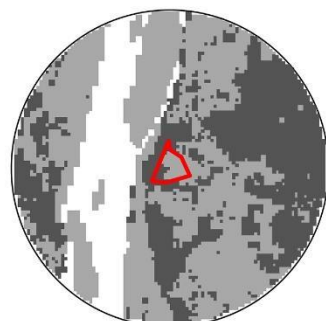
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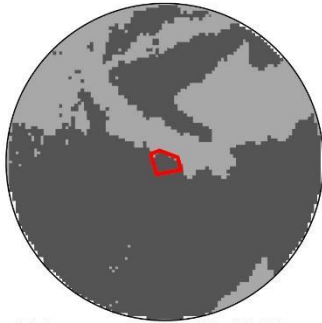


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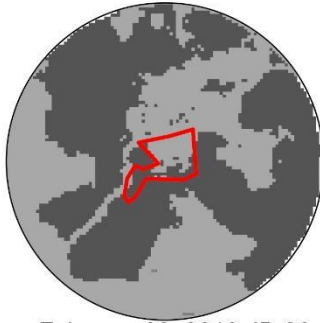


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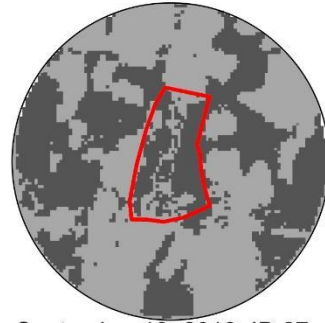
Continuation of Fig. S1.



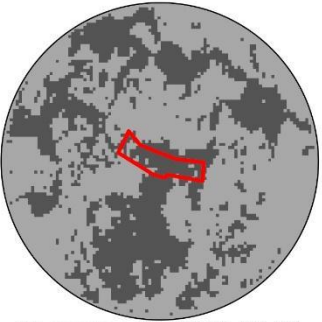
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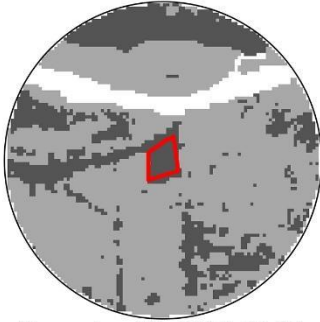
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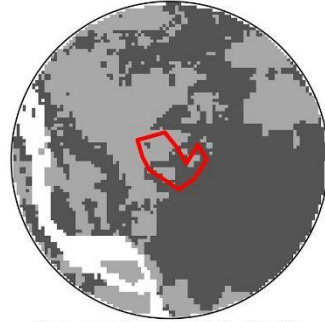
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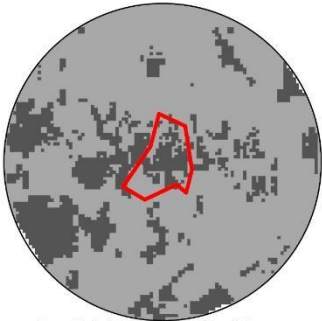
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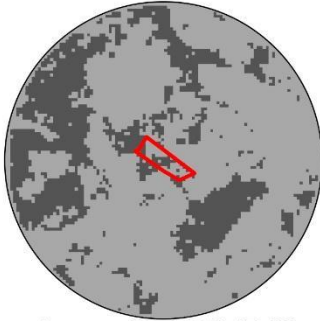
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February 04, 2019. ID 30.



April 10, 2018. ID 31.



January 29, 2018. ID 32.

Continuation of Fig. S1.

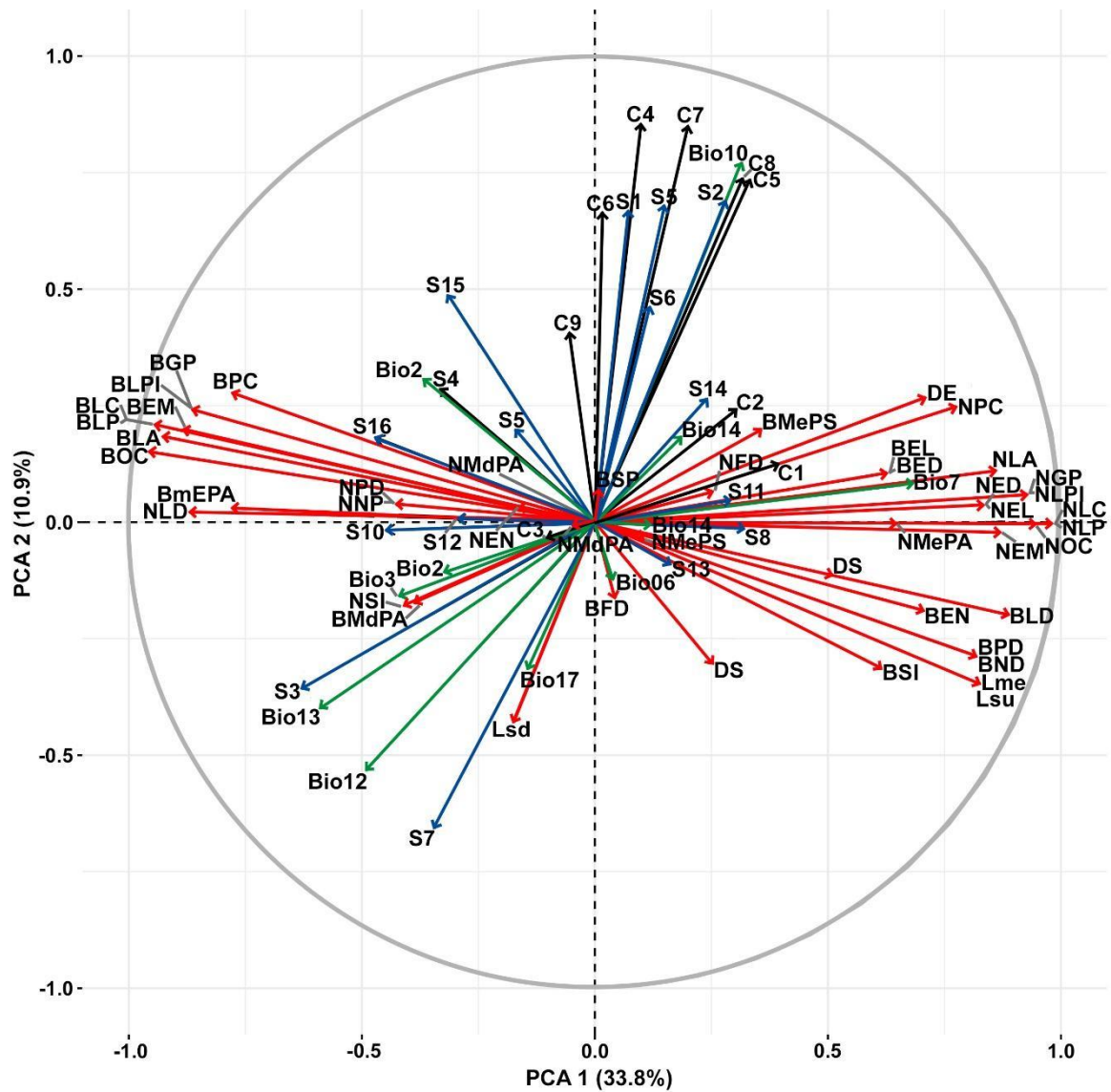


Fig. S2 Individual Factor Map of the first two principal components for 81 variables of local, landscape, soil, and climate at the 32 peach palm production sites in Colombia. The description of abbreviations is presented in Table S4, S3, S6, and S7. The landscape variables that start with “B” before its abbreviation correspond to land cover of “Forest” and those with “N” to land cover of “Non-forest”.

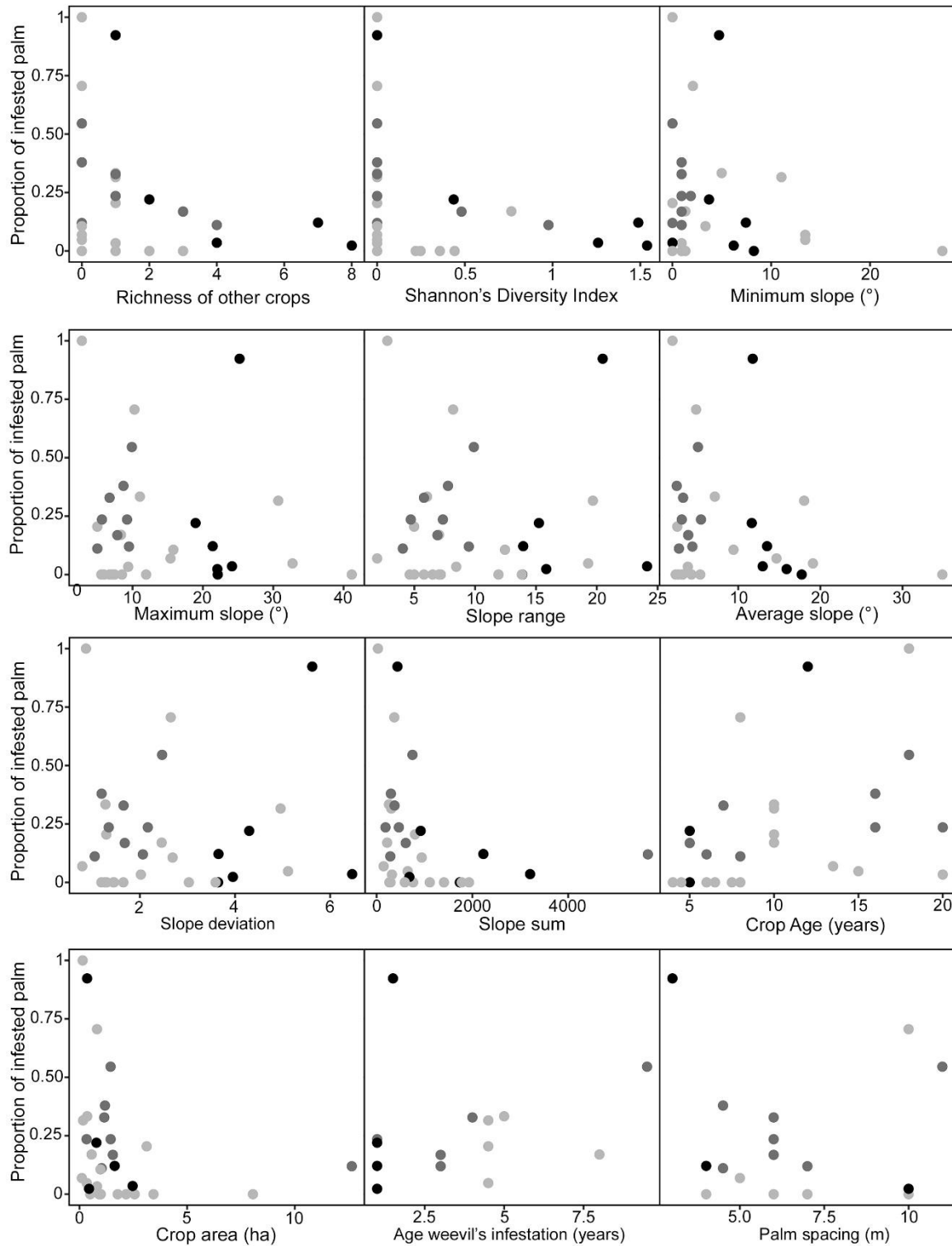


Fig. S3 Scatterplots of the proportion of peach palm infested by *Dynamis borassi-Rhynchophorus palmarum* with respect to explanatory variables at a local scale (quantitative variables) (Table S4). Andes: black points, Pacific: dark gray points, Amazon: light gray points.

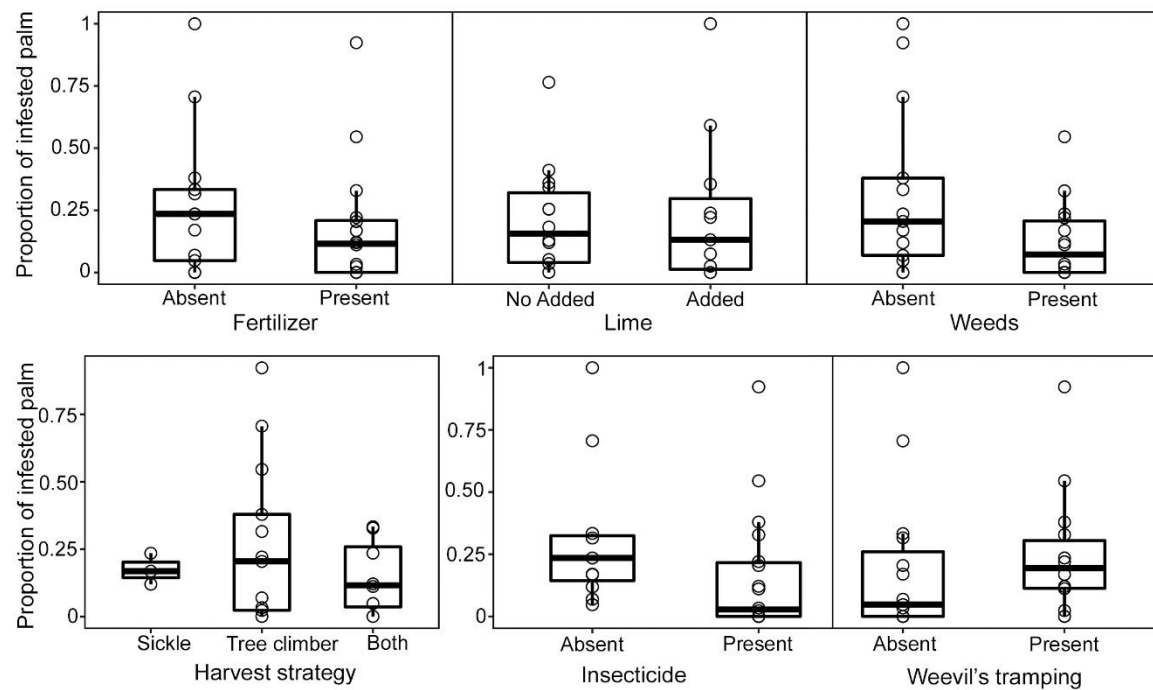


Fig. S4 Box plots and data distribution (circles) of the proportion of peach palms infested by *Dynamis borassi-Rhynchophorus palmarum* with respect to explanatory and local qualitative variables (Table S4).

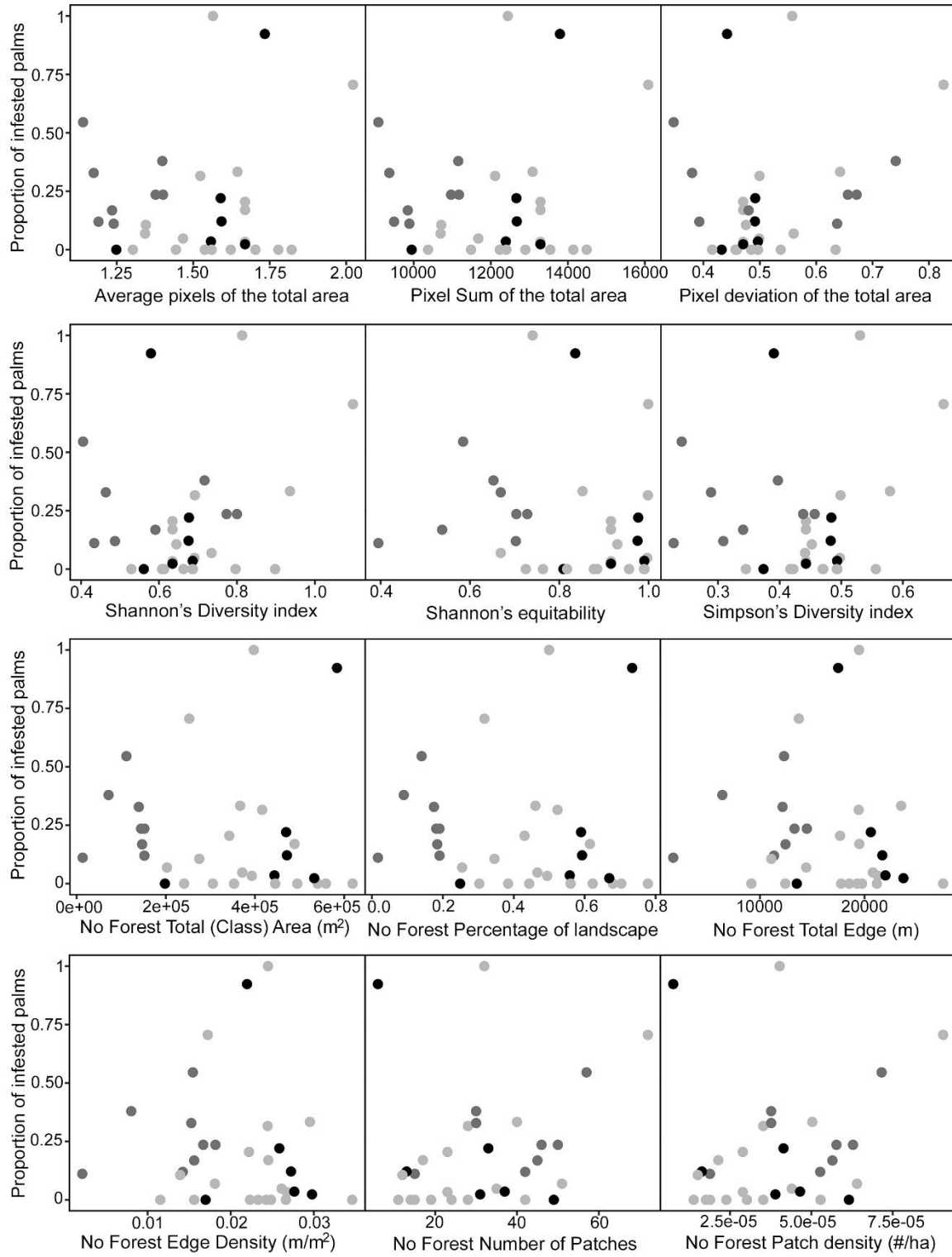
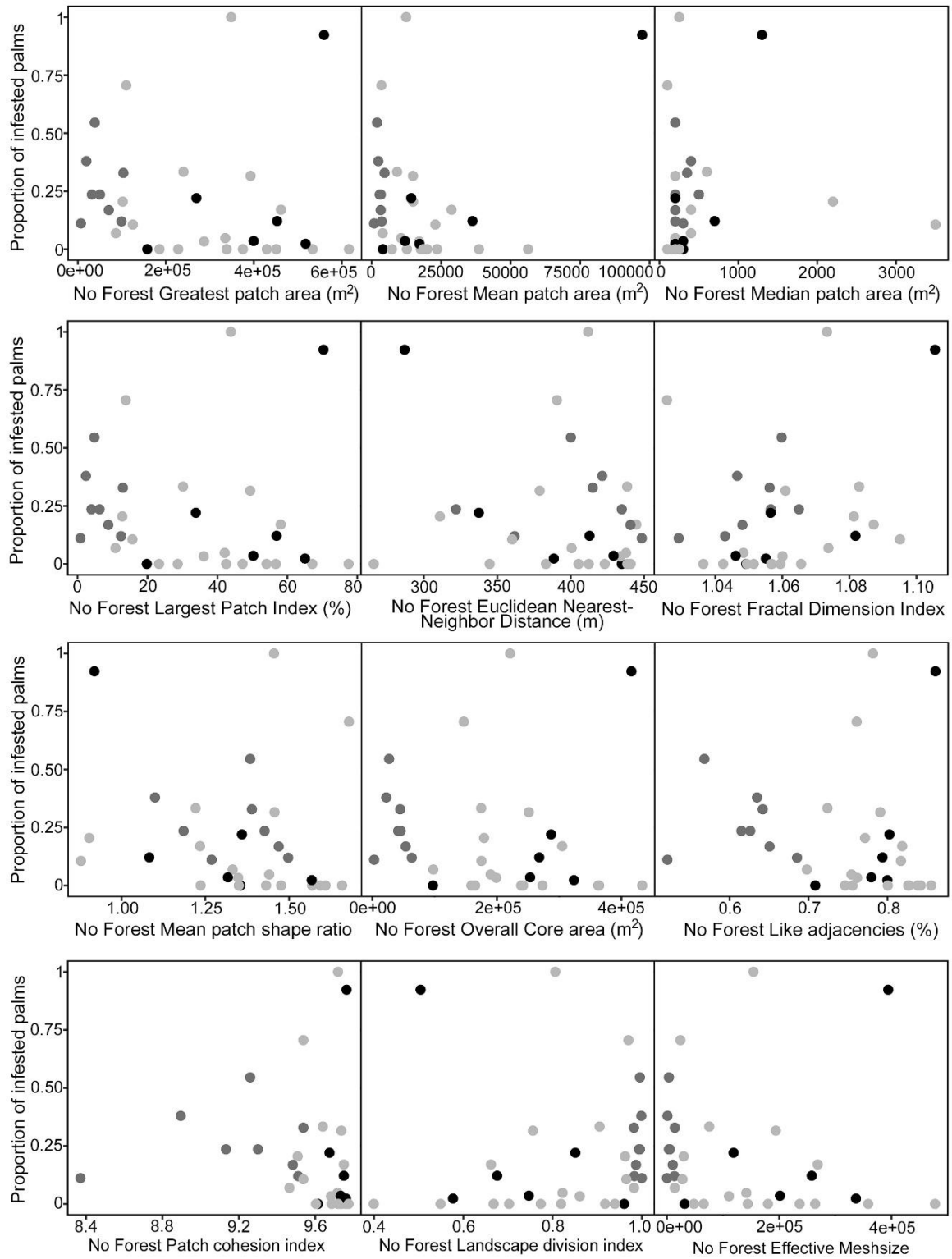
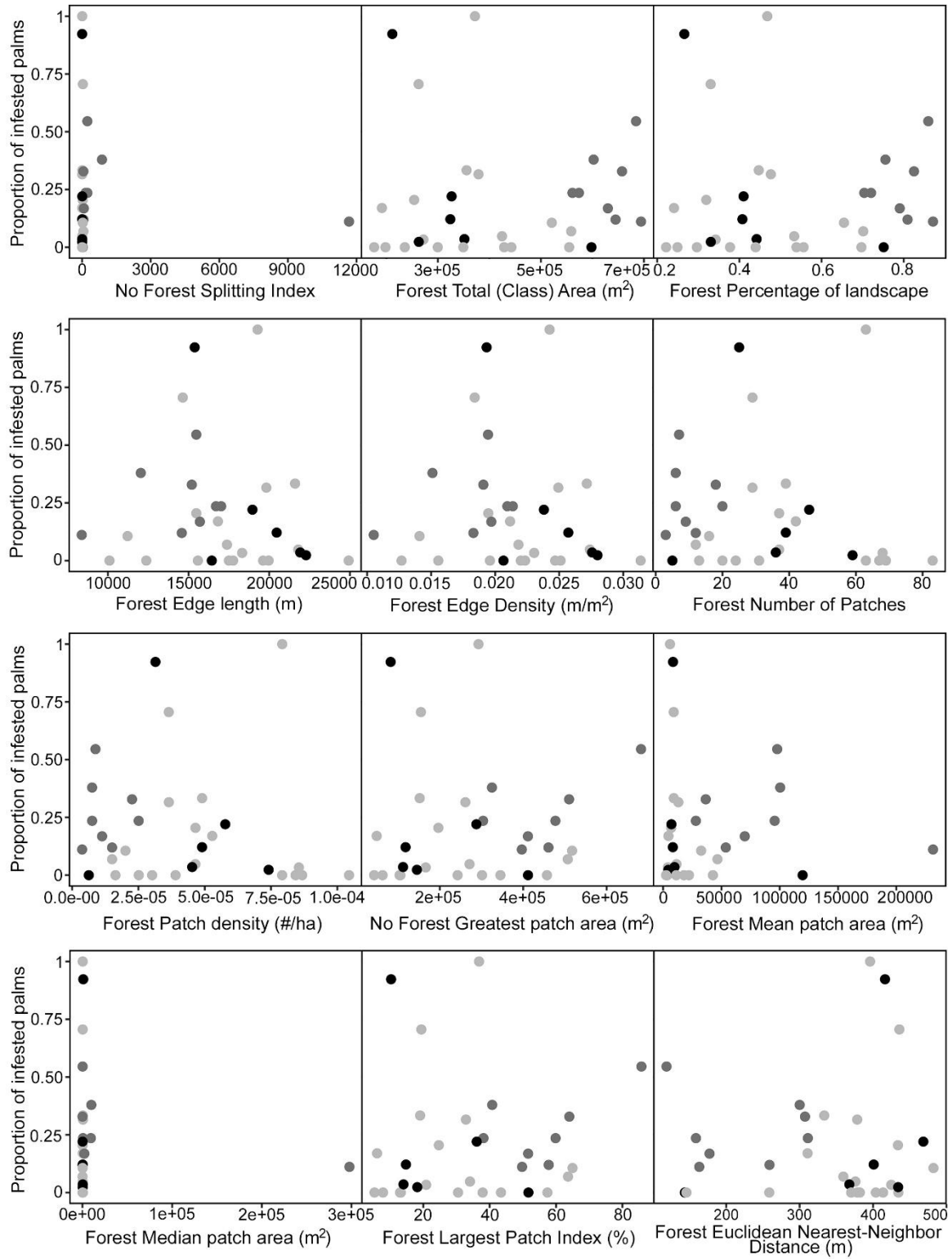
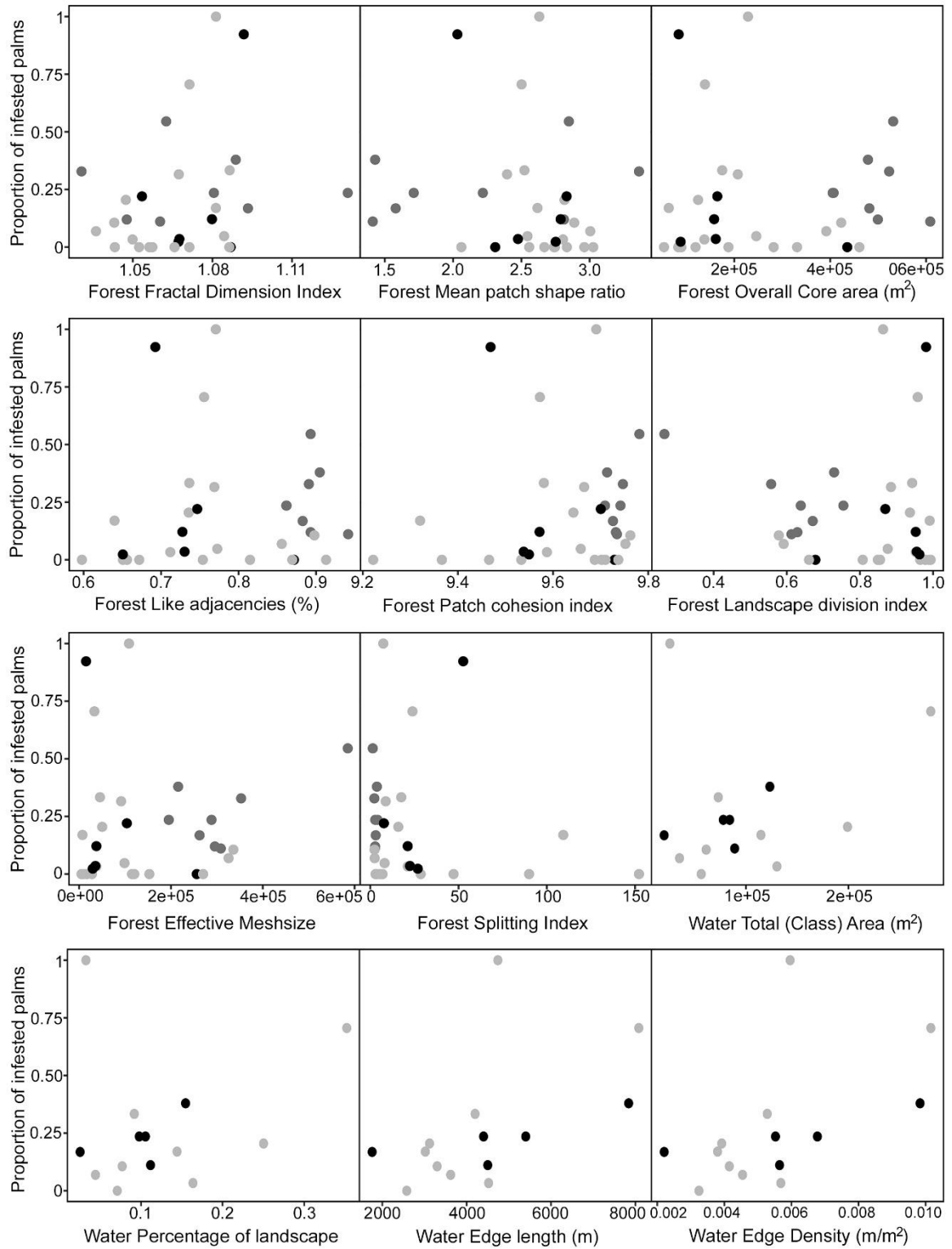


Fig. S5 Plots of proportion of infested peach palms by *Dynamis borassi-Rhynchophorus palmarum* with respect to the landscape explanatory variables (Table S6). Black points: Andes; Dark gray points: Pacific; Light gray points: Amazon.

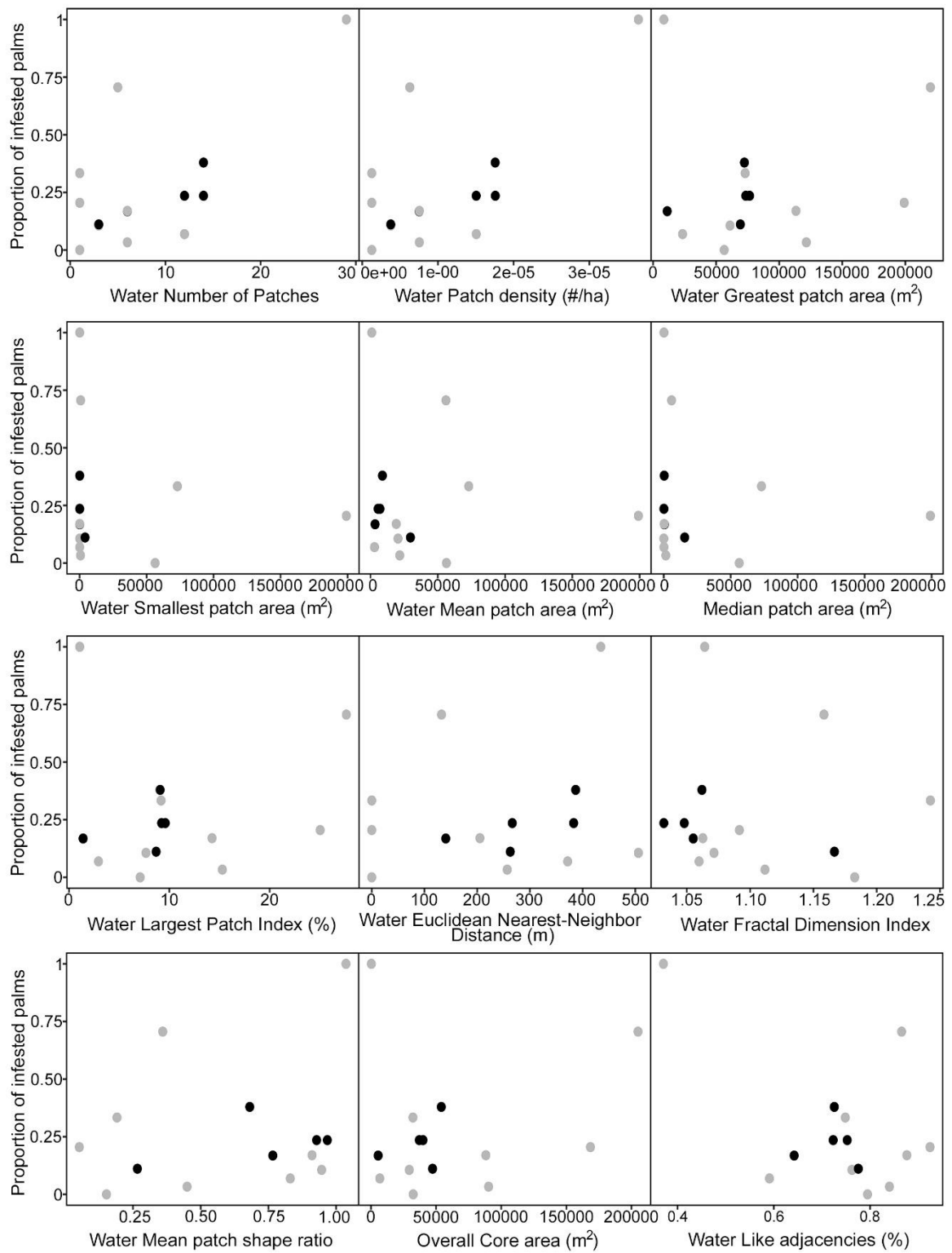




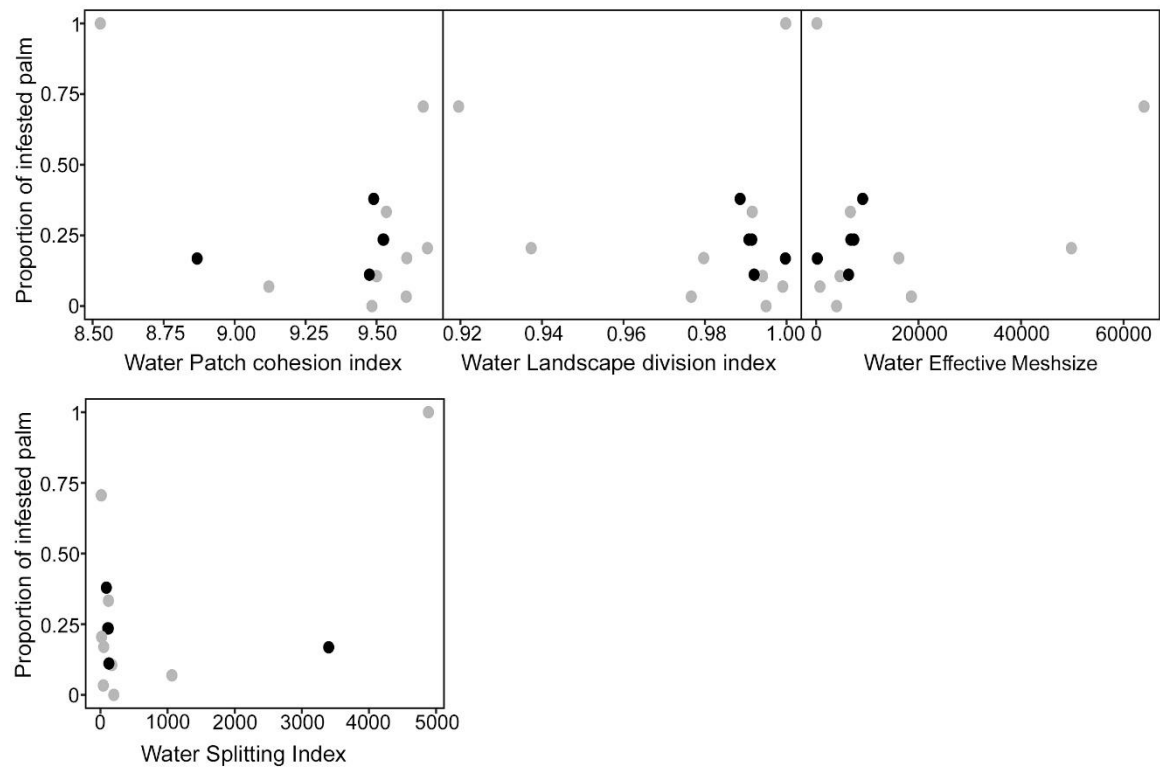
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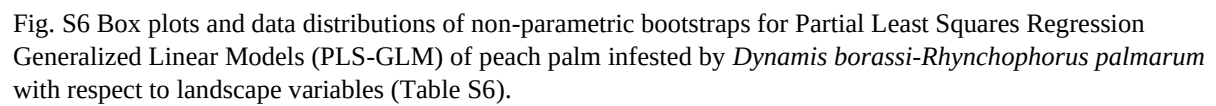
Continuation of the Fig. S5.



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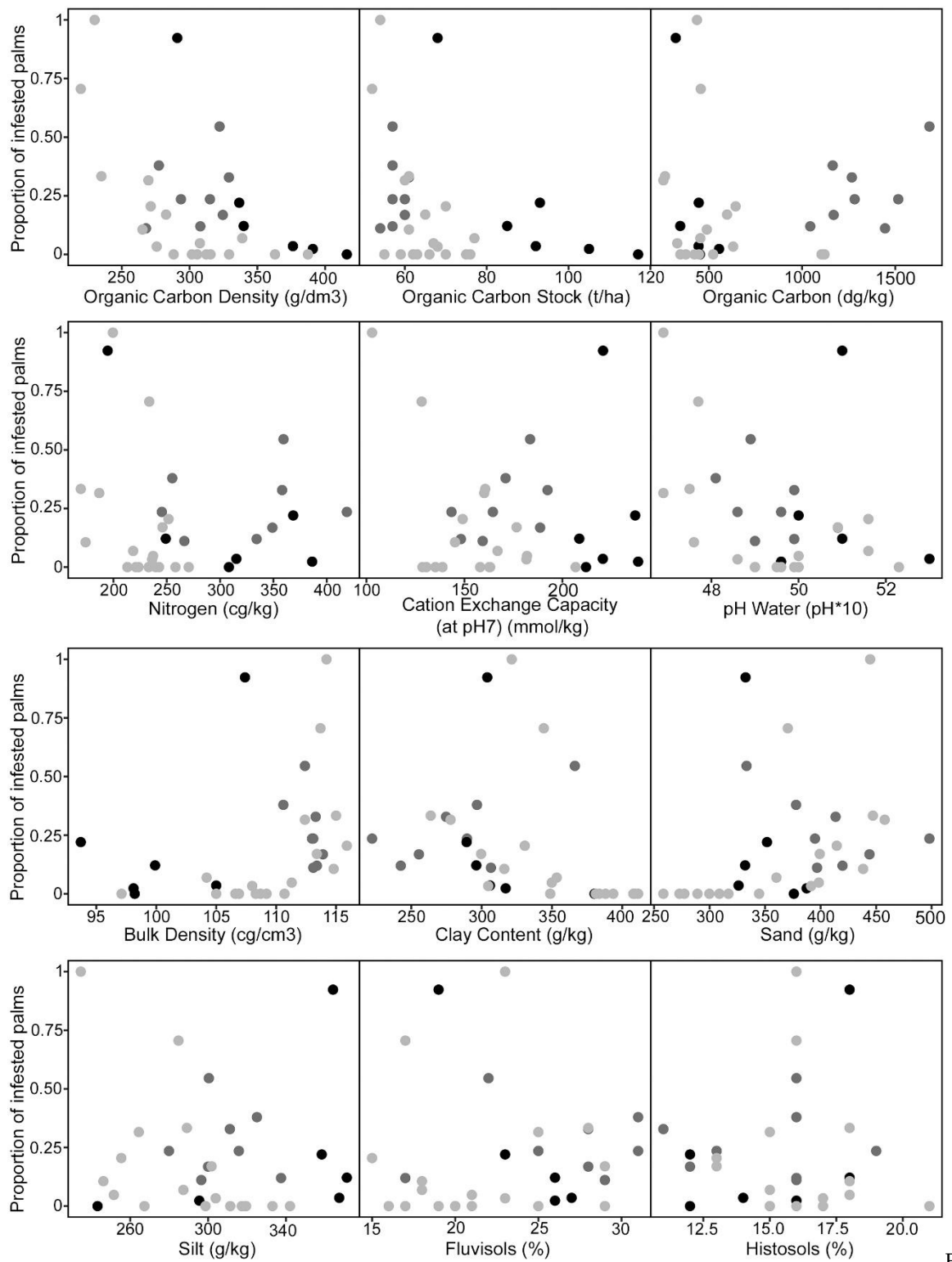
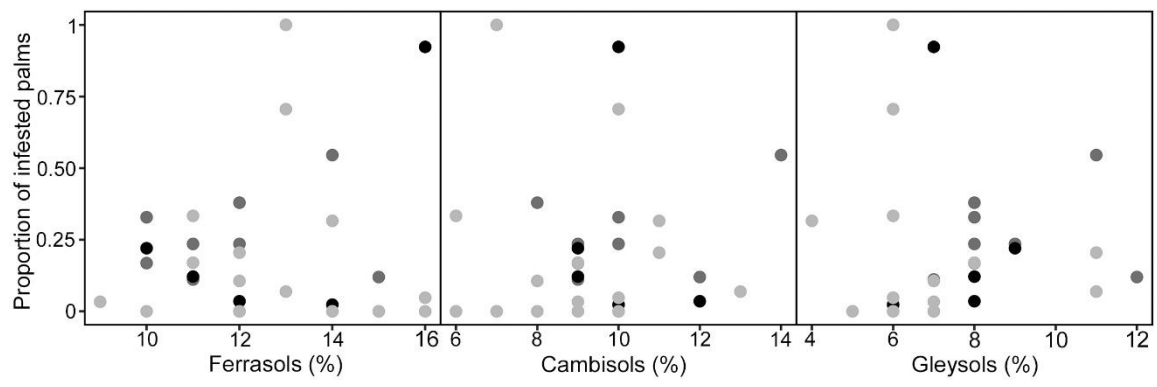


Fig.

S7 Plots of proportion of infested peach palms by *Dynamis borassi-Rhynchophorus palmarum* with respect to soil variables (Table S7). Black points: Andes; Dark gray points: Pacific; Light gray points: Amazon.



Continuation of Fig. S7.

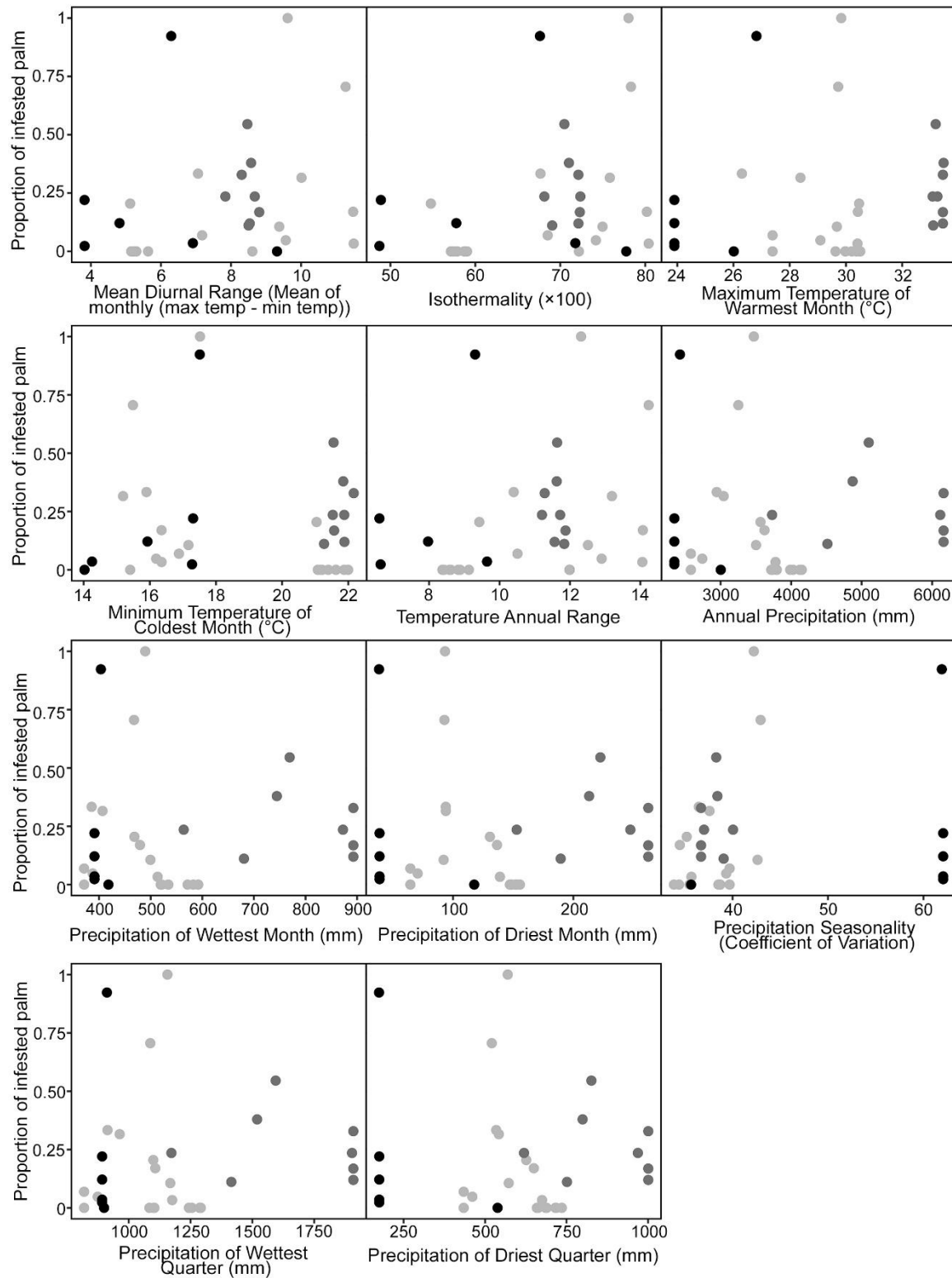


Fig. S8 Plots of proportion of infested peach palms by *Dynamis borassi-Rhynchophorus palmarum* with respect to climate variables (Table S3). Black points: Andes; Dark gray points: Pacific; Light gray points: Amazon.

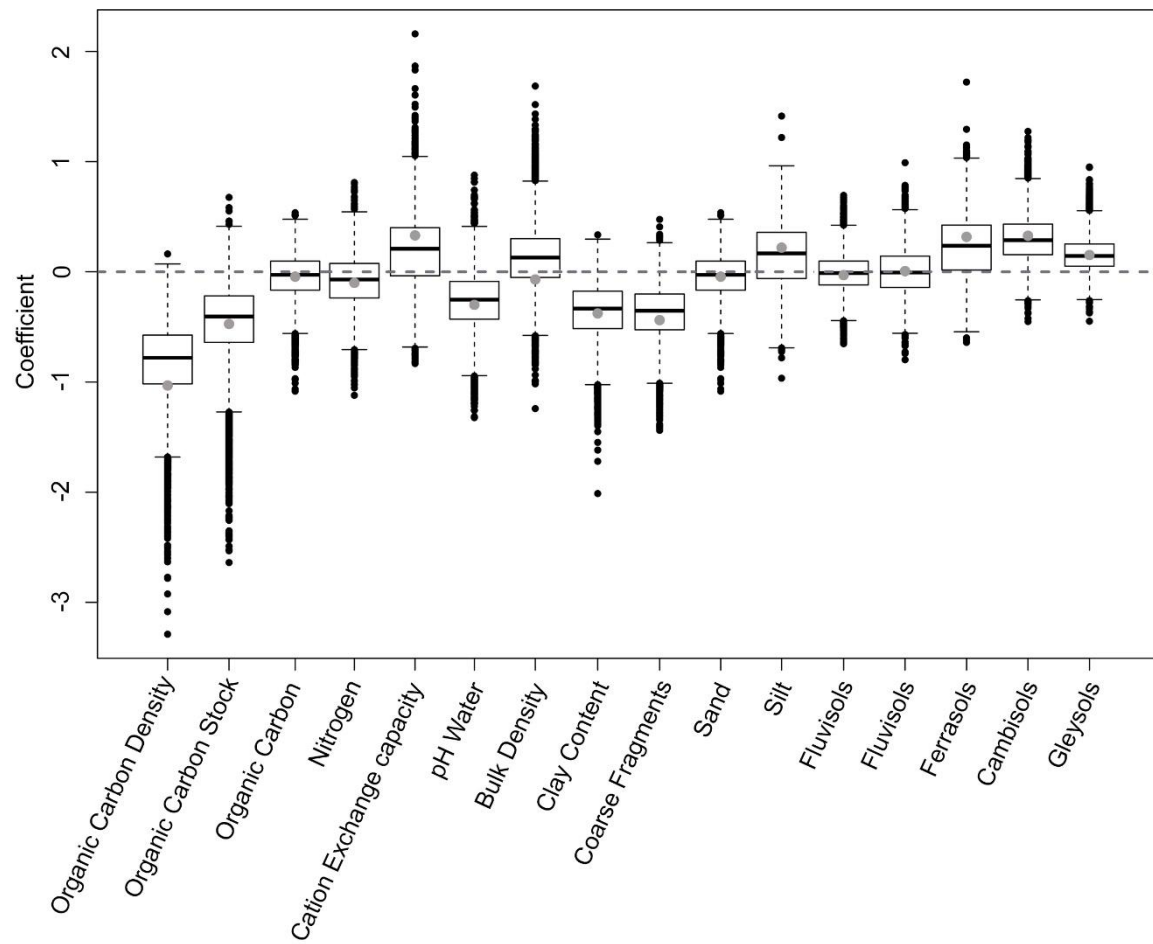


Fig. S9 Box plots and data distributions of non-parametric bootstrap for Partial Least Squares Regression Generalized Linear Models (PLS-GLM) of peach palm infested by *Dynamis borassi-Rhynchophorus palmarum* with respect to soil variables (Table S7).

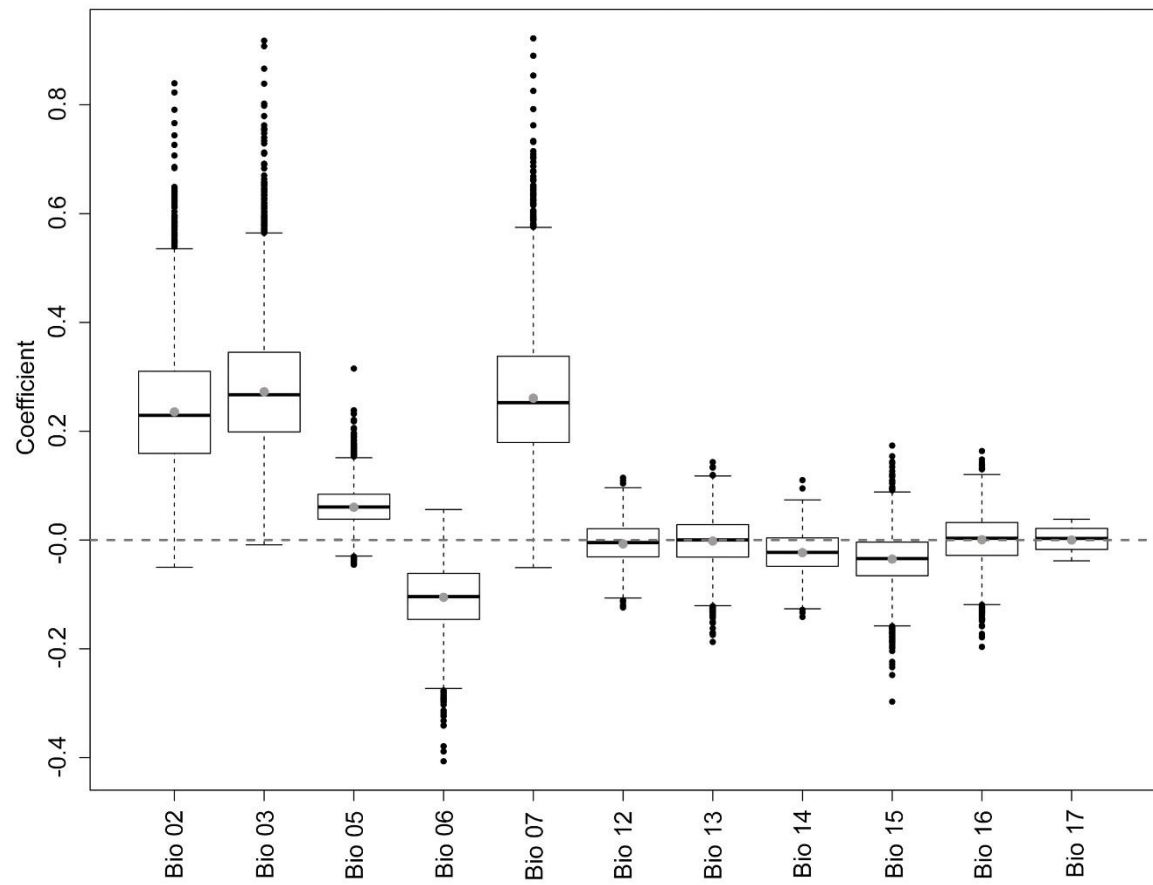


Fig. S10 Box plots and data distributions of non-parametric bootstraps for Partial Least Squares Regression Generalized Linear Models (PLS-GLM) of peach palm infested by *Dynamis borassi-Rhynchophorus palmarum* with respect to climate variables (Table S3).