

## Project Update: February 2024

**Outreach workshops:** To date, we carried out two outreach workshops; one of them was with the ejidatarios of the towns of Tapachapan (Municipality of Coatepec) and Tejocotal (Municipality of Tlalnelhuayocan). The second workshop was carried out at the "Parque Lineal El Sedeño" as part of the activities of the course "Restoring flows of water and life" organized by REDFORESTA. These workshops focused on the importance of riparian strips for cloud forest conservation (**Figure 1**). Thanks to these meetings we identified five people from Tapachapan and Tejocotal interested in this project (**Table 1**).

**Field work:** We conducted prospective visits to the lands of each of the people interested in the project. The objective of these visits was to determine the feasibility for the establishment of the riparian units (**Figure 2**). Thanks to these visits we identified a total of three sites for the establishment of the riparian units. Once the sites were identified we proceeded to prepare the plots to establish the riparian units. We established a total of 10 riparian units and one unit was established in pasture as a control group. The preparation of each riparian unit followed the following steps:

1. Layout of the unit; we delimited each unit with a plastic string covering a rectangular area of 20 m long by 7 m wide (**Figure 3**).
2. Hole digging: in each unit we dug holes 30 cm deep by 20 cm in diameter for the planting of the individuals used. Each hole was separated by a distance of 1 m (**Figure 3**).
3. Fencing: each riparian unit was fenced with wooden posts and barbed wire to avoid cattle browsing (**Figure 3**).
4. Establishment of plantations; for each riparian unit we selected a total of nine plant species (**Table 2**). In each unit we established 10 individuals of each species to accumulate a total of approximately 90 individuals per riparian unit.
5. Once the riparian units were established, we made a first measurement of the height and basal diameter of all planted individuals (**Figure 4**). We also placed iButton temperature sensors in each riparian unit (**Figure 4**).

**Table 1.** Number of established riparian units. The ID, owner, locality, municipality and number of species used in each unit are shown.

#	ID Riparian Unit	Landowner	Locality	Municipality	Number of plants
1	1H	Humberto Hernández	Tapachapan	Coatepec	92
2	1E	Fernando Efrén Morales	Tapachapan	Coatepec	90

<b>3</b>	2.1E	Fernando Efrén Morales	Tapachapan	Coatepec	90
<b>4</b>	2.2E	Fernando Efrén Morales	Tapachapan	Coatepec	87
<b>5</b>	3E	Fernando Efrén Morales	Tapachapan	Coatepec	93
<b>6</b>	1F	Francisco Hernández Villa	Tapachapan	Coatepec	90
<b>7</b>	2F	Francisco Hernández Villa	Tapachapan	Coatepec	90
<b>8</b>	3F	Francisco Hernández Villa	Tapachapan	Coatepec	90
<b>9</b>	1M	Martín Sangabriel	El Tejocotal	Tlalnahuayocan	95
<b>10</b>	2M	Martín Sangabriel	El Tejocotal	Tlalnahuayocan	89
<b>11</b>	3M	Martín Sangabriel	El Tejocotal	Tlalnahuayocan	97
				TOTALES	1003



A.



B.

**Figure 1.** Outreach workshops are carried out at FIDECOAGUA office (Figure A) and at "Parque lineal El Sedeño" as part of the Course "Restaurando flujos de agua y vida" organized by RedForesta (Figure B).



**Figure 2.** Prospecting visits to the ejidos in the municipalities of Tapachapan and El Tejocotal.

**Table 2.** List of species used in mixed plantations for the restoration of riparian strips of cloud forest. The number of planted individuals is shown.

<b>Species</b>	<b>Number of individuals</b>
<i>Alnus acuminata</i>	108
<i>Juglans pyriformis</i>	112
<i>Meliosma alba</i>	114
<i>Quercus cortesii</i>	111
<i>Quercus insignis</i>	115
<i>Quercus paxtalensis</i>	109
<i>Quercus pinnativenulosa</i>	109
<i>Trema micrantha</i>	112
<i>Turpinia insignis</i>	113



A.



B.

Figure 3. Preparation of riparian units. Layout and pitting (Figure A), and fencing (Figure B).

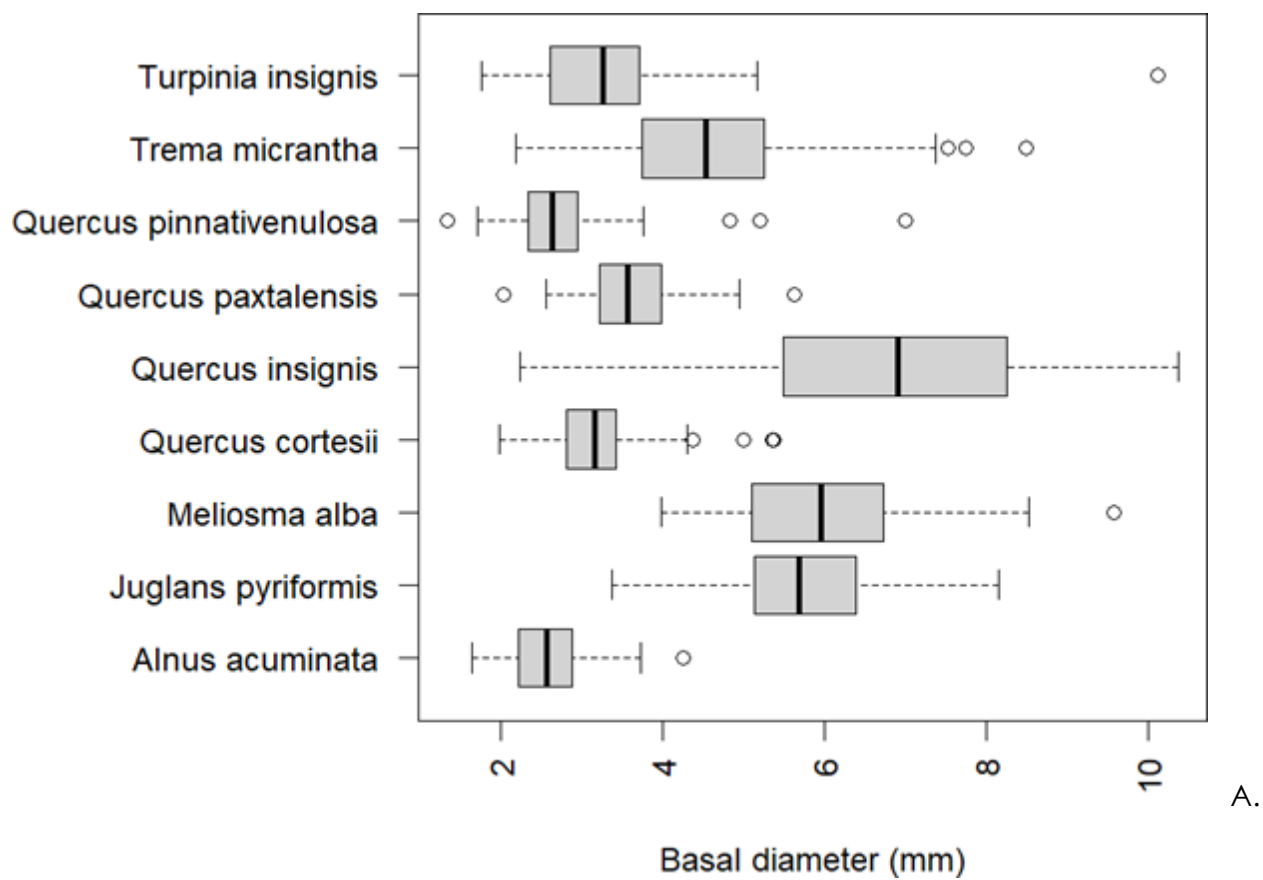


A.

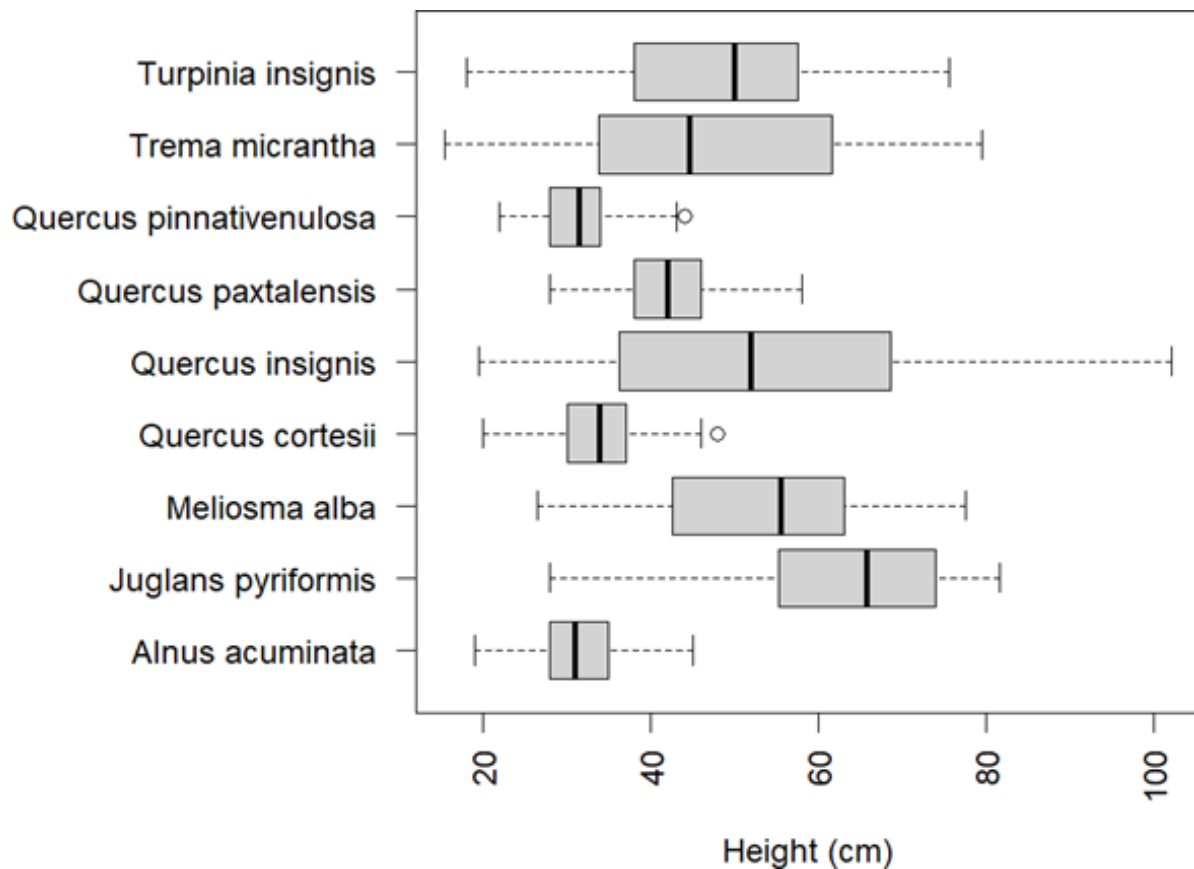


B. & C.

Figure 4. Measurement (height and basal diameter) of the planted individuals (Figure A and B), and placement of iButtons (Figure C) for temperature measurement.



A.



B.

Figure 5. Average values of initial height and basal diameter of the species used in the riparian units.

**Forthcoming activities to be carried out during 2024.**

**February-March**

Cleaning and weeding of riparian units.

**April-May**

Soil sampling for chemical analysis.

**June-July**

Measurement of canopy cover, soil depth and percentage of stoneiness. Annual measurement of survival and growth of plantations.

**February-July**

Preparation of a scientific article on the identification of potential species for the restoration of riparian environments of cloud forest