

Project Update: July 2020

Aims and objectives

The target species are bird communities and endemic birds of the chaco. This study aims to know the birds' responses in different land use intensity and different landscape configurations which were established at different times.

Materials and methods

Birds communities were registered using acoustic recordings units (ARU) (Figure 1), collected between September and October 2019 in the Paraguayan chaco. These recordings coincided with the end of the dry season and the beginning of the wet season, a period time when most birds initiate breeding. The Paraguayan chaco can be divided into two regions considering the deforestation evolution: central chaco (22° 34'31.73" S 59° 20' 40.08" W) and north chaco region (21° 8'1.50 " S 61 ° 37'59.84" W).



Figure 1. Romina holds an automatic recording unit. © Hugo del Castillo

Fieldwork

The fieldwork team was composed of Romina Cardozo (RC), Hugo del Castillo (HdC) and Lucas Cañete (LC). To collect data, the study area was divided into four regions, two in central chaco and two in north chaco including the National Park Defensores del Chaco. The first region was central chaco, located in the centre of the Paraguayan chaco, at about 450 km northeast of Asunción. The second region was located north 235 km from central chaco, until getting the national park.

Each site was chosen carefully before the trip contacting owners and with local help in each property. RC chose 36 sites to collect recordings, each site was in private properties with cattle production, being 18 sites at central chaco and 18 at north chaco. ARUs were installed at 2 m in trees in each site (Figure 2).

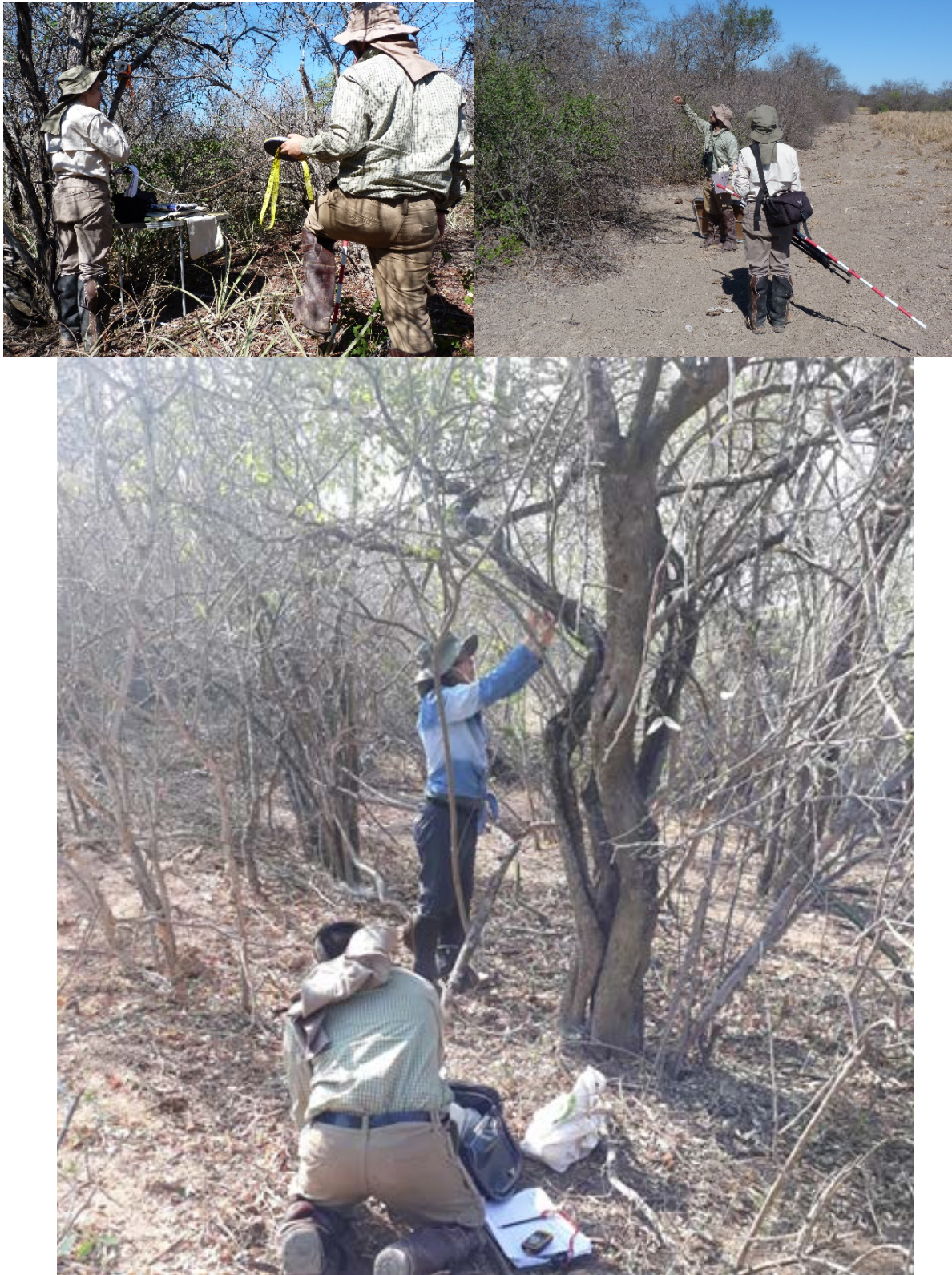


Figure 2. Installing the recorder in one site (left) and measuring variables at the dry forest (right). © Hugo del Castillo.

RC is now evaluating vocal activity from 720 recordings in 36 sites, each recording was 10-minute samples (wave format 48 MHz and 16 bits) from 0500 to 0830 h in the morning and between 1600 to 1900 h in the evening, which coincides with a peak in avian vocal activity.



Chaco endemic birds *Campephilus leucopogon* (left) *Strix chacoensis* (right). © Romina Cardozo.



Fieldwork team (left to right): Hugo del Castillo, Romina Cardozo and Lucas Cañete