

## **Project Update: November 2014**

### **Objectives/Achievements:**

1. Determine the exact population size at Agro Forestal Rio Verde SA – Fully Achieved  
*The mark and recapture study has been fully completed. Over more three months and more than 25 independent sampling trips, our survey has identified and ringed 23 individuals (11 females, 10 males, and two juveniles).*

2. Census all bird species living in the area – Fully Achieved  
*The census project has all but been completed but there is still opportunity to add some potential migrants to the list. As of today, we have compiled a list of 112 bird species (Annex 1).*

3. Investigate the home range and foraging behaviour of the White-winged Nightjar – Not Achieved  
*The home range and foraging behaviour element of the project has not begun yet due to the life span of the radio trackers that were obtained from Biotrack Ltd. The radio tracking will start this December and continue until March. Analysis of the collected data will be conducted using ArcGIS.*

4. Investigate Mating Behaviour – Partially Achieved  
*The 2014-2015 breeding season recently began and our research team has located 5 of display territories. Observations have matched the published descriptions but we are hoping to elaborate the area of interaction between individuals within the areas. Further data collection will contribute to a better understanding of the lek structure.*

5. Investigate Fledgling Behaviour – Not Achieved  
*The investigation of the fledgling behaviour will begin in February and involve radio tracking.*

6. Determine the Habitat Composition of the Study Area – Partially Achieved  
*The study area has been expanded by more than 200% due to the discovery that the population resided in a larger area of the property than originally thought. Vegetation surveys and transects with the hope of determining exactly what characteristics of the habitat the Nightjars require.*

The single largest difficulty that we have encountered has been a single event of deforestation within the study area. Of the nearly 900 ha of appropriate habitat, 100 ha was destroyed to make room for two new stands of Eucalyptus (see map, Annex 2). The destruction took place in June and occurred in areas in which Nightjars had been seen to reside in previous years. It came as a large surprise and prompted a meeting between myself and the landowners. The landowners apologized for not having updated me about the change in their plans and assured me that it wouldn't happen again. The relationship has since developed and after a presentation of some of the results of this study, the ownership has designated the areas in which the White-winged Nightjars are found as a “non-production zone” off limits to all future development.

## **Outcomes:**

1. Determining the actual size of the population: By defining the exact number of Nightjars living in the area, we have been able to better grab the attention of the landowners and local tourists. The exactness of the count has led to a much improved response both to fund raising and awareness building. The location of their habitat also contributed significantly to the ultimate protection of the correct areas of the total property.
2. Building a relationship with the landowners of AgroForestal Rio Verde S.A.: The relationship was established two years before the project began but has only just begun to flourish over the past four months. Since our confrontation about the deforestation and the presentation of our results, we have seen a marked change in the way that Agro Forestal views its land. Beyond the designation of the “non-production zone,” the company has also agreed to begin developing a private scholarship program that will invite more scientists to study the wildlife they have on their property. When this scholarship/grant becomes a reality, it will hopefully be one of the longest-lasting results of this project that applies not only to the White-winged Nightjar but all the threatened species that live on the property.
3. Identifying the Lesser Nothura's range: The Lesser Nothura, a globally threatened species, had been seen in the area before during a bird tour in 1997 but it had not been relocated until early this year. During our censusing, we have determined that there is quite a large overlap between the Nothura and the Nightjars habitats and identified at least 7 different individuals.

## **Future Plans:**

Beyond completing the projects next year of activities, there are already plans in preparation for continuing into 2016. There is a second population of White-winged Nightjar on a nearby property that would be interesting to study in an attempt to determine ranging distances and population emigration. It would also be interesting to apply what we have learned from the radio-tracking surveys and vegetation sampling and search for other populations that have thus-far gone undetected. Para La Tierra continues to be dedicated to contributing to the conservation of our emblem and flagship species beyond the end of this scientific investigation.

The next stage of the project is by far going to be the most integral segment to the project's success. The data we will collect from the radio-tracking surveys will give us data on the movement of eight different individuals over a crucial four month period. We hope to determine the habitat structure that the species depends upon and understand their emigration and ranging behaviour. Using the data collected during this stage, we plan to construct a comprehensive conservation plan for the White-winged Nightjar that will be applicable across its entire range.

Forgoing any unexpected problems with the equipment already purchased, the extra money saved will go towards extending the length of time that our scientific research team can

conduct our radio-tracking project. With the £1200, another 10 trackers could be purchased. This would more than double our data collection capabilities. We plan to wait until the first eight trackers have been attached to birds to ensure that the model and size need not be improved upon. The data that will come from the first round of tracking will also be used to guide the use of the second round of trackers. The trackers could ultimately be used to track individuals found on the neighbouring property (Las Mananitas) and the data compared across two different populations or be reattached to the same individuals as round one for a more complete picture of their annual behaviour. By mid-February we hope to have decided on our exact course of action and have the second round of trackers ready for early to mid-March.

The primary goal for the dissemination of the results is to publish the information in peer-reviewed scientific journals. We also hope to continue to publish news and results about the species and the endangered Cerrado biome in popular media outlets. Finally through the PLT website and blog, we hope to raise awareness using grass-roots marketing and social media.

The RSGF logo is present on the Para La Tierra homepage ([www.paralatierra.org](http://www.paralatierra.org)) and has been linked to their blog on Facebook. RSGF will be acknowledged in all publications that are generated during this project.

## Annex I

| Common Name             | Scientific Name                 | Hab            | Abun | Stat | End | Cons   |
|-------------------------|---------------------------------|----------------|------|------|-----|--------|
| <b>RHEIDAE (1)</b>      |                                 |                |      |      |     |        |
| Greater Rhea            | <i>Rhea americana</i>           | CL             | U    | R    |     | NT/ NT |
| <b>TINAMIDAE (3)</b>    |                                 |                |      |      |     |        |
| Red-winged Tinamou      | <i>Rhyncotus rufescens</i>      | CL, CS, SS     | C    | R    |     |        |
| Lesser Nothura          | <i>Nothura minor*</i>           | CS             | R    | R    | CE  | VU/CR  |
| Spotted Nothura         | <i>Nothura maculosa</i>         | CL, CS, SS     | C    | R    |     |        |
| <b>CICONIIDAE (1)</b>   |                                 |                |      |      |     |        |
| Wood Stork              | <i>Mycteria americana</i>       | AQ             | R    | O    |     |        |
| <b>CATHARTIDAE (3)</b>  |                                 |                |      |      |     |        |
| Turkey Vulture          | <i>Cathartes aura</i>           | AE             | C    | R    |     |        |
| Black Vulture           | <i>Coragyps atratus</i>         | AE             | C    | R    |     |        |
| King Vulture            | <i>Sarcoramphus papa</i>        | AE             | R    | R    |     | LC/NT  |
| <b>ACCIPITRIDAE (7)</b> |                                 |                |      |      |     |        |
| Pearl Kite              | <i>Gampsonyx swainsonii</i>     | CS             | R    | R    |     |        |
| Swallow-tailed Kite     | <i>Elanoides forficatus</i>     | AE             | U    | P    |     | LC/NT  |
| Plumbeous Kite          | <i>Ictinia plumbea</i>          | AE             | U    | S    |     |        |
| Long-winged Harrier     | <i>Circus buffoni</i>           | AQ, MA         | R    | R    |     |        |
| Savanna Hawk            | <i>Buteogallus meridionalis</i> | CS             | U    | R    |     |        |
| Roadside Hawk           | <i>Rupornis magnirostris</i>    | CD, GF, AT, AG | C    | R    |     |        |
| White-tailed Hawk       | <i>Geranoaetus albicaudatus</i> | CS, CL         | C    | R    |     |        |
| <b>RALLIDAE (1)</b>     |                                 |                |      |      |     |        |
| Ash-throated Crake      | <i>Porzana albicollis</i>       | AQ, MA         | C    | R    |     |        |
| <b>CHARADRIIDAE (1)</b> |                                 |                |      |      |     |        |
| Southern Lapwing        | <i>Vanellus chilensis</i>       | AQ, CL, CS, AG | C    | R    |     |        |
| <b>COLUMBIDAE (4)</b>   |                                 |                |      |      |     |        |

|                            |                                |                    |   |     |    |       |
|----------------------------|--------------------------------|--------------------|---|-----|----|-------|
| Picazuro Pigeon            | <i>Patagioenas picazuro</i>    | GF, AT, CD         | C | R   |    |       |
| Eared Dove                 | <i>Zenaida auriculata</i>      | CD, CS, GF, AG     | C | R   |    |       |
| Ruddy Ground Dove          | <i>Columbina talpacoti</i>     | AG                 | C | R   |    |       |
| Picui Ground Dove          | <i>Columbina picui</i>         | AG                 | C | R   |    |       |
| <b>CUCULIDAE (3)</b>       |                                |                    |   |     |    |       |
| Smooth-billed Ani          | <i>Crotophaga ani</i>          | AQ, MA, AG         | C | R   |    |       |
| Guira Cuckoo               | <i>Guira guira</i>             | AG                 | C | R   |    |       |
| Striped Cuckoo             | <i>Tapera naevia</i>           | CD, CS, SS, AG     | U | R   |    |       |
| <b>TYTONIDAE (1)</b>       |                                |                    |   |     |    |       |
| Barn Owl                   | <i>Tyto alba</i>               | CL, AG             | R | R   |    |       |
| <b>STRIGIDAE (5)</b>       |                                |                    |   |     |    |       |
| Tropical Screech-Owl       | <i>Megascops choliba</i>       | CD, GF, AT         | C | R   |    |       |
| Ferruginous Pygmy-Owl      | <i>Glaucidium brasilianum</i>  | CD, GF, AT         | C | R   |    |       |
| Burrowing Owl              | <i>Athene cunicularia</i>      | CS, CL, AG         | C | R   |    |       |
| Striped Owl                | <i>Pseudoscops clamator</i>    | CS                 | R | R   |    |       |
| Short-eared Owl            | <i>Asio flammeus</i>           | CS, CL             | R | R   |    |       |
| <b>CAPRIMULGIDAE (4)</b>   |                                |                    |   |     |    |       |
| Nacunda Nighthawk          | <i>Chordeiles nacunda</i>      | CS, CL             | U | W   |    |       |
| Little Nightjar            | <i>Setopagis parvula</i>       | CS, CD             | C | R/S |    |       |
| White-winged Nightjar      | <i>Eleothreptus candicans*</i> | CS, CL, MA         | U | R   | CE | EN/EN |
| Scissor-tailed Nightjar    | <i>Hydropsalis torquata</i>    | CS, CD             | C | R/S |    |       |
| <b>APODIDAE (1)</b>        |                                |                    |   |     |    |       |
| Sick's Swift               | <i>Chaetura meridionalis</i>   | AE                 | U | S   |    |       |
| <b>TROCHILIDAE (4)</b>     |                                |                    |   |     |    |       |
| Planalto Hermit            | <i>Phaethornis pretrei</i>     | MA                 | U | R   |    |       |
| White-tailed Goldenthrout  | <i>Polytmus guainumbi</i>      | MA                 | R | R   |    | LC/NT |
| Glittering-bellied Emerald | <i>Chlorostilbon lucidus</i>   | CD, CS, GF, AT, AG | U | R   |    |       |
| Gilded Hummingbird         | <i>Hylocharis chrysurus</i>    | CD, CS, GF, AT, AG | C | R   |    |       |
| <b>BUCCONIDAE (2)</b>      |                                |                    |   |     |    |       |
| White-eared Puffbird       | <i>Nystalus chacuru</i>        | CS, SS             | C | R   |    |       |
| Spot-backed Puffbird       | <i>Nystalus maculatus</i>      | CS, SS             | U | R   |    |       |
| <b>RAMPHASTIDAE (2)</b>    |                                |                    |   |     |    |       |
| Toco Toucan                | <i>Ramphastos toco</i>         | CD, CS             | U | R   |    |       |
| Chestnut-eared Aracari     | <i>Pteroglossus castanotis</i> | AT, GF             | U | R   |    |       |
| <b>PICIDAE (3)</b>         |                                |                    |   |     |    |       |
| White Woodpecker           | <i>Melanerpes candidus</i>     | CD, CS             | C | R   |    |       |
| Green-barred Woodpecker    | <i>Colaptes melanochloros</i>  | CD, GF             | U | R   |    |       |
| Campo Flicker              | <i>Colaptes campestris</i>     | CD, CS, CL         | C | R   |    |       |
| <b>CARIAMIDAE (1)</b>      |                                |                    |   |     |    |       |
| Red-legged Seriema         | <i>Cariama cristata</i>        | CD, CS, AG         | U | R   |    |       |
| <b>FALCONIDAE (5)</b>      |                                |                    |   |     |    |       |
| Southern Caracara          | <i>Caracara plancus</i>        | CS, AG             | U | R   |    |       |
| Yellow-headed Caracara     | <i>Milvago chimachima</i>      | CS, AG             | U | R   |    |       |
| Chimango Caracara          | <i>Milvago chimango</i>        | CS, AG MA          | U | R   |    |       |
| American Kestrel           | <i>Falco sparverius</i>        | CS, CL, SS, AG     | C | R   |    |       |
| Aplomado Falcon            | <i>Falco femoralis</i>         | CS, CL, SS,        | C | R   |    |       |
| <b>PSITTACIDAE (3)</b>     |                                |                    |   |     |    |       |
| Pileated Parrot            | <i>Pionopsitta pileata</i>     | AT                 | U | R   | AF | LC/NT |
| Scaly-headed Parrot        | <i>Pionus maximiliani</i>      | AT, GF             | U | R   |    |       |
| Turquoise-fronted Parrot   | <i>Amazona aestiva</i>         | AT, GF             | U | R   |    | LC/NT |

|                               |                                       |                |   |   |    |  |       |
|-------------------------------|---------------------------------------|----------------|---|---|----|--|-------|
| <b>FURNARIIDAE (1)</b>        |                                       |                |   |   |    |  |       |
| Rufous Hornero                | <i>Furnarius rufus</i>                | AG             | C | R |    |  |       |
| <b>TYRANNIDAE (19)</b>        |                                       |                |   |   |    |  |       |
| Yellow-bellied Elaenia        | <i>Elaenia flavogaster</i>            | AG             | C | R |    |  |       |
| Large Elaenia                 | <i>Elaenia spectabilis</i>            | AT, AG         | U | S |    |  |       |
| Lesser Elaenia                | <i>Elaenia chiriquensis</i>           | CD, CS, SS     | U | S |    |  |       |
| Southern Beardless-Tyrannulet | <i>Camptostoma obsoletum</i>          | CD, CS         | C | R |    |  |       |
| Suiriri Flycatcher            | <i>Suiriri suiriri</i>                | CD             | R | R |    |  |       |
| Bearded Tachuri               | <i>Polystictus pectoralis*</i>        | CS, CL         | R | R |    |  | NT/NT |
| Sharp-tailed Tyrant           | <i>Culicivora caudacuta*</i>          | CS, CL         | U | R |    |  | VU/VU |
| Pearly-vented Tody-Tyrant     | <i>Hemitriccus margaritaceiventer</i> | CD             | C | R |    |  |       |
| Bran-coloured Flycatcher      | <i>Myiophobus fasciatus</i>           | CD             | U | R |    |  |       |
| Vermilion Flycatcher          | <i>Pyrocephalus rubinus</i>           | AG             | U | W |    |  |       |
| Spectacled Tyrant             | <i>Hymenops perspicillatus*</i>       | AQ             | 1 | R |    |  |       |
| Yellow-browed Tyrant          | <i>Satrapa icterophrys</i>            | CS             | U | R |    |  |       |
| White-rumped Monjita          | <i>Xolmis velata</i>                  | CD, CS, CL, AG | C | R |    |  | LC/NT |
| Streamer-tailed Tyrant        | <i>Gubernetes yetapa</i>              | MA             | U | R |    |  |       |
| Cock-tailed Tyrant            | <i>Alectrurus tricolor*</i>           | CS, CL         | U | R |    |  | VU/EN |
| Cattle Tyrant                 | <i>Machetornis rixosa</i>             | AG             | C | R |    |  |       |
| Great Kiskadee                | <i>Pitangus sulphuratus</i>           | AG             | C | R |    |  |       |
| Tropical Kingbird             | <i>Tyrannus melancholicus</i>         | CS, AG         | C | S |    |  |       |
| Fork-tailed Flycatcher        | <i>Tyrannus savana</i>                | CS, AG         | C | S |    |  |       |
| <b>VIREONIDAE (1)</b>         |                                       |                |   |   |    |  |       |
| Rufous-browed Peppershrike    | <i>Cyclarhis gujanensis</i>           | AT, GF         | U | R |    |  |       |
| <b>CORVIDAE (3)</b>           |                                       |                |   |   |    |  |       |
| Purplish Jay                  | <i>Cyanocorax cyanomelas</i>          | CD, GF         | C | R |    |  |       |
| Curl-crested Jay              | <i>Cyanocorax cristatellus</i>        | CD, CS, AG     | C | R | CE |  | LC/VU |
| Plush-crested Jay             | <i>Cyanocorax chrysops</i>            | AT, GF         | C | R |    |  |       |
| <b>HIRUNDINIDAE (7)</b>       |                                       |                |   |   |    |  |       |
| Tawny-headed Swallow          | <i>Alopochelidon fucata</i>           | AE             | U | R |    |  |       |
| Southern Rough-winged Swallow | <i>Stelgidopteryx ruficollis</i>      | AE             | U | O |    |  |       |
| Brown-chested Martin          | <i>Progne tapera</i>                  | AE             | U | R |    |  |       |
| Grey-breasted Martin          | <i>Progne chalybea</i>                | AE             | C | R |    |  |       |
| White-rumped Swallow          | <i>Tachycineta leucorrhoa</i>         | AE             | U | S |    |  |       |
| Barn Swallow                  | <i>Hirundo rustica</i>                | AE             | U | S |    |  |       |
| Cliff Swallow                 | <i>Petrochelidon pyrrhonota</i>       | AE             | U | O |    |  |       |
| <b>TROGLODYTIDAE (1)</b>      |                                       |                |   |   |    |  |       |
| House Wren                    | <i>Troglodytes aedon</i>              | AG             | C | R |    |  |       |
| <b>POLIOPTILIDAE (1)</b>      |                                       |                |   |   |    |  |       |
| Masked Gnatcatcher            | <i>Poliioptila dumicola</i>           | GF             | 1 | R |    |  |       |
| <b>MIMIDAE (1)</b>            |                                       |                |   |   |    |  |       |
| Chalk-browed Mockingbird      | <i>Mimus saturninus</i>               | CS, AG         | C | R |    |  |       |
| <b>THRAUPIDAE (15)</b>        |                                       |                |   |   |    |  |       |
| White-banded Tanager          | <i>Neothraupis fasciata</i>           | CS, SS         | C | R |    |  | NT/VU |
| White-rumped Tanager          | <i>Cypsnagra hirundinacea</i>         | CS, SS         | C | R |    |  | LC/VU |
| Sayaca Tanager                | <i>Thraupis sayaca</i>                | AT, GF, AG     | C | R |    |  |       |
| Burnished-buff Tanager        | <i>Tangara cayana</i>                 | CS             | R | O |    |  |       |
| Grassland Yellowfinch         | <i>Sicalis luteola</i>                | CL             | 1 | O |    |  |       |
| Wedge-tailed Grass-Finch      | <i>Emberizoides herbicola</i>         | CS, CL, SS     | C | R |    |  |       |
| Pearly-breasted Seedeater     | <i>Sporophila pileata</i>             | CS             | R | P |    |  |       |
| Tawny-bellied Seedeater       | <i>Sporophila hypoxantha</i>          | MA             | U | P |    |  |       |

|                           |                                  |                   |   |   |    |       |
|---------------------------|----------------------------------|-------------------|---|---|----|-------|
| Dark-throated Seedeater   | <i>Sporophila ruficollis</i>     | MA                | R | P |    | NT/NT |
| Marsh Seedeater           | <i>Sporophila palustris</i>      | MA                | 1 | P | MG | EN/EN |
| Chestnut Seedeater        | <i>Sporophila cinnamomea</i>     | CS, CL, MA        | U | R | MG | VU/VU |
| Double-collared Seedeater | <i>Sporophila caeruleascens</i>  | CS, SS, CL,<br>AG | C | R |    |       |
| Plumbeous Seedeater       | <i>Sporophila plumbea</i>        | CS, SS, CL        | U | R |    | LC/NT |
| Black-masked Finch        | <i>Coryphaspiza melanotis*</i>   | CS, CL, SS        | R | R |    | VU/EN |
| Pileated Finch            | <i>Coryphospingus cucullatus</i> | CS, SS, AG        | C | R |    |       |
| <b>INCERTAE SEDIS (1)</b> |                                  |                   |   |   |    |       |
| Black-throated Saltator   | <i>Saltator atricollis</i>       | CD, CS, CL,<br>SS | C | R | CE |       |
| <b>EMBERIZIDAE (2)</b>    |                                  |                   |   |   |    |       |
| Rufous-collared Sparrow   | <i>Zonotrichia capensis</i>      | CS, SS, AG        | U | R |    |       |
| Grassland Sparrow         | <i>Ammodramus humeralis</i>      | CS, CL, SS        | C | R |    |       |
| <b>PARULIDAE (1)</b>      |                                  |                   |   |   |    |       |
| Masked Yellowthroat       | <i>Geothlypis aequinoctialis</i> | MA                | U | R |    |       |
| <b>ICTERIDAE (3)</b>      |                                  |                   |   |   |    |       |
| Variable Oriole           | <i>Icterus pyrrhopterus</i>      | AT, GF            | U | R |    |       |
| Chopi Blackbird           | <i>Gnorimopsar chopi</i>         | CS, AG            | C | R |    |       |
| White-browed Blackbird    | <i>Sturnella superciliaris</i>   | MA                | U | R |    |       |
| <b>FRINGILLIDAE (1)</b>   |                                  |                   |   |   |    |       |
| Hooded Siskin             | <i>Sporagra magellanica</i>      | AG                | R | R |    |       |

## Annex II





