

MEXICO'S

MAROON - FRONTED PARROT

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Photos by Fernando Cerra





Observations of the Maroon-fronted Parrots reproductive biology, diet and parasitism were essential to the study.

The Ecosystems Sustainable Management Program (PMSE) from Tecnológico de Monterrey, in Mexico oversees the Maroon-fronted Parrot (*Rhyncobopsitta terresi*) project. This long term study started in 1995 and over the years we have been able to identify almost all important nesting areas and study basic aspects of the species' biology such as breeding, diet, home range and habitat use.

In 1947 the Maroon-front, a former subspecies of the Thick-billed Parrot (*Rhyncobopsitta pachyrhyncha*), was named as a separate species. It is listed as "vulnerable" on the IUCN Red List. The population is estimated at approximately 2,000-4,000 individuals occurring in an area less than 20,000 km² (52,000 mi²). Maroon-fronts inhabit temperate forests in a limited range of the Sierra Madre Oriental in the north-eastern Mexico in the states of Nuevo Leon, Coahuila and Tamaulipas.

The Maroon-fronted Parrot nests in cavities and crevices of high limestone cliffs. To date the most important nesting cliff for the Maroon-fronted Parrots is El Taray Sanctuary, located in Coahuila state. Pairs arrive at the breeding areas between April and May, egg laying occurs in July and chicks fledge between mid and late October,

though sometimes fledging lasts into November. Once nesting season ends, parrots fly to the southern part of their range to spend the winter.

Though we have tried it is almost impossible to access nest cavities. Nest monitoring is carried out through direct observation of nesting cliffs in order to estimate the number of breeding pairs as well as chicks fledged per nest. The parrots feed on pine seeds, which are especially important during the breeding season. They also eat agave flowers, fruits and soil from clay licks.

The main problems these parrots face are habitat destruction due to logging activity, fires and agriculture, as well as occasional poaching for the pet trade.

This past year two wildfires destroyed 2,000 hectares of pine forest, including El Taray Sanctuary. For this reason one of our research goals during the 2006 field season was to investigate the effect fires had on the parrot's population as a whole. To date we are looking for funds to restore burned areas by involving local people in reforestation, flora and fauna monitoring and soil erosion prevention. Since forests regeneration is very slow, adequate conservation strategies have to be implemented to preserve these temperate forests as parrots as well.

The Volunteering Program

Year after year PMSE recruits volunteers from all over the world. Since the beginning of this project we have had volunteers from the US, Canada, Spain, Guatemala, Hungary, and of course Mexico, mainly undergraduate and/or graduate students in biology or environmental sciences. With a minimum stay of a single month, volunteers increase their knowledge of wildlife and habitat management, and learn real-life conservation strategies. They have the unique opportunity to be close to the Maroon-fronts - one of the most northern parrots in the world that lives up to 2,000 meters above sea level. Volunteers enjoy the friendship and team work that is part of every day in the field. They also help to contribute a huge amount of data on the ecology and conservation of this rare and special parrot.

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Volunteer researchers enjoy intimate encounters with the parrots along with stunning scenery on their daily treks to observe nests.

A Volunteer's day in the field

By George Oláh and Lauren Morgan-Outhisack

As volunteer field assistants we were proud to be selected from a number of applicants to be part of Monterrey Tech's research project on Maroon-fronted Parrots. We came from around the world - Lauren, a biology student, arrived from California, USA; and me (George) as a zoologist from Hungary. Being part of the research team, exploring the beautiful country and studying these amazing birds was an experience we will not forget.

Our duty was to visit these cliff nests in the mountains and make reproductive behavioural observations documenting cavity usage by reproductive pairs. While in the field, we slept in a tent and sometimes at local peoples' homes. The most exciting part of the project was that every day we travelled to another location in the mountains. Normally, we spent 10 days in the field and 4 days in Monterrey for data entry, provisions and relaxation. The next 10 days in the field we would go to a new site. This usually meant that no given nesting cliff was visited again for 4 weeks. When nesting cliffs were revisited, a different observer would monitor the cliff. There were

usually multiple cliffs in an area and most days we worked alone.

Our average morning started at around 7:30 a.m. to the sound of Brown-backed Solitaires and Elegant Trogon as well as other birds singing and calling. We ate breakfast after quickly packing up the tent and our sleeping gear. As the truck was reorganised to make the necessities accessible, we grabbed the data sheets and food that we needed for the next seven hours. Then we all packed into the truck and were off. René would drop us off at the cliffs that we would be watching for the day. This daily routine was slightly different when we observed the cliffs at El Taray. On those mornings, we were up and driving the bumpy, narrow dirt road by 7:15 am. After that we hiked up to the nesting cliffs through a steep field of rocks, boulders and burned vegetation. The hike would start out cold until the sun rose, heating things up and telling us that the parrots would be active soon.

At the end of this hike our official day started, usually around 8:10 am. Most days, we would not have to walk very far before reaching our observation post for the day. After finding the perfect "comfortable" vantage point, it became a waiting, watching and listening game. With busy

sites, counting and tracking of birds usually started shortly after 8:20. Collecting all the necessary data involved counting the birds, keeping track of pairs and solitary birds, recording which cavity in the cliff face individuals went in, and recording the time they enter and exited, as well as how they did this. A continual visual vigil was not always kept, mainly for the sake of our necks. A "rest" was possible because you could always hear the screeching, talking chatter of the parrots long before you could see the specks of their body in the sky. This routine would continue until 5 pm, when we were picked up and loaded into the truck for the trek to our next camp site. Once there we would unload our sleeping gear, set up the tent and start making dinner. Dinner at around 6:30 pm was our one "real" meal of the day and it was usually consumed within minutes. After dinner we would wash the dishes and play a couple rounds of cards. Most nights we would hit the hay around 10 pm to be well-rested for our next day. The highlight of our work was to see the parents flying together with their chick(s) just a few meters from our observation points.



Parrots in the Wild

