Tracking the Trail of the Peruvian Tern (*Sternula lorata*), Peru – South America

Preliminary report for Rufford Small Grants

The Peruvian Tern (*Sternula lorata*) is endemic to the Humboldt current-region. Its range extends from Guayaquil, Ecuador to Antofagasta, Chile.

During the present year (2015) the Peruvian tern left its breeding area the first days of April, sooner than previous years (May) therefore we had to postpone the start of the project until the beginning of the next breeding season in late November – early December 2015.

To verify if the presence and behaviour of the species for this year is similar to that of previous years we decided to run a preliminary survey in the locality of Ite (17º53'19.30"S, 70º59'5.52"O) in the southern coast of Peru where the species have been reported from July to September.

Ite is a town located at the southern limit of Peru, at 900km from Lima. Since the eighties it is known due to its "lagoons", which is a wetland created by the accumulation of mining tailings poured at the mouth of the Locumba River since the sixties. The Ite wetlands and surrounding areas are considered important bird areas.

The main objectives of this survey was to verify the presence of the species at Ite wetlands and surrounding areas, to record behaviour and habitat use and to identify and record the main threats in the area.

Study area

The study area covered 11.30 Km comprising four characteristic areas of Ite; the wetlands, sandy beaches, rocky beaches and desert plains, these zones were chosen taking into account the behaviour and the distribution of the Peruvian tern that has been reported near wetlands, resting on sandy beaches, nesting on desert plains and feeding at rocky beaches.

Map 1.- Study areas in Ite

Legend: Wetland Sandy beach Rocky beach Desert Plain

Wetland

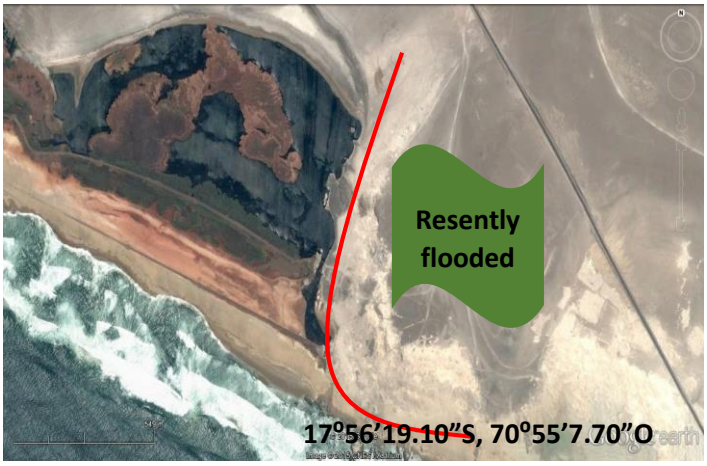
The wetland was surveyed from three reference points: through a path (17º53'19.30"S, 70º59'5.52"O) crossing the wetland from east to west; following the hedge between wetland and beach until the mouth of the Locumba River (17º54"56.27"S, 70º57'58.52"O) and the southern end of the wetland (17º56'19.10"S, 70º55'7.70"O). Total distance covered: 8Km.

No Peruvian terns were detected.

Map 2.- Across the wetland

Map 3.-Hedge between Wetland and beach

Map 4.- New flooded areas



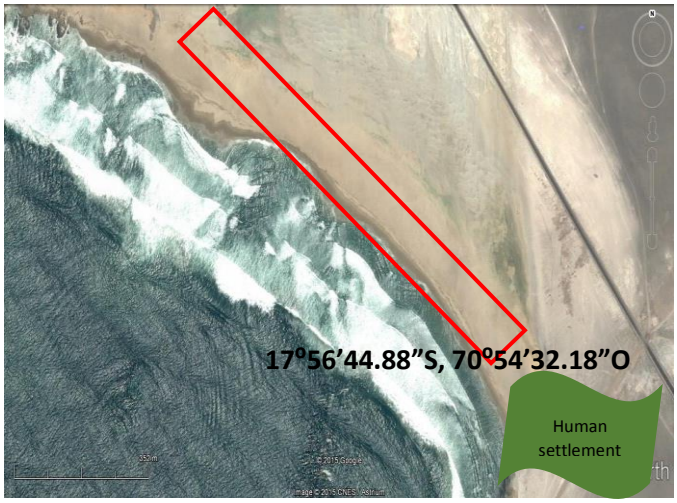
Sandy Beaches

The beach of Ite was surveyed from the place where the path that cross the wetland ends to the mouth of the Locumba river and the beach of La Meca was surveyed from boundaries of the human settlement (17º56'44.88"S, 70º54'32.18"O) to the southern end of the wetland.

There was no evidence of the Peruvian terns resting on the beaches nor feeding at the sea.

Map 5- Ite beach

Map 6.- La Meca Beach

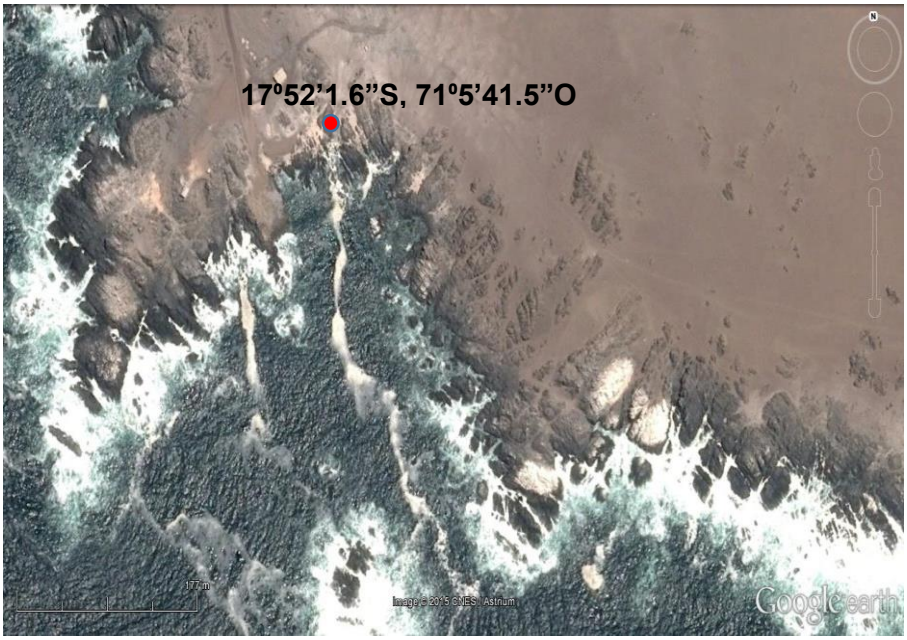


Rocky Beach

Picata Point is located at 8Km to the north of Ite, is a rocky beach with big rocks that get into the sea. The observations where made from a vantage point (17º52’1.6”S, 71º5’41.5”O) between two big rocks inhabited by Peruvian Boobies (*Sula variegata*) and Reed-legged Cormorants (*Phalacrocorax gaimardi*).

At 8:20AM a group of four *Sternula lorata* adults were seeing feeding at 500m from the coast, they were seeing flying form south to north and north to south in 10 to 15 minute intervals, always were at least two of them on sight, it may be possible that the group was formed by four to six individuals. Although the species was positive identified with the help of binoculars, it was impossible to obtain a good photographic register.

Map 7.- Picata point

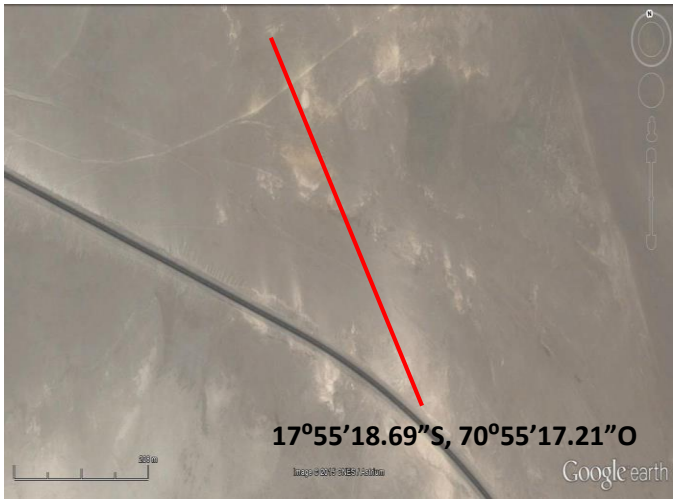


Desert Plains

The survey was made in two desert plains, one in front of La Meca beach (17º55'18.69"S, 70º55'17.21"O) and the other in front of Picata Point (17º51'29.24"S, 71º5'20.75"O), these areas were chosen due to their likeness with other breeding areas also located at 1 to 2Km from the shore and characterized by gross sand with shell residues and scattered stones.

There was no evidence of *Sternula lorata* in the area.

Map 8.- Desert plains, La Meca beach



Map 9.- Desert plains, Punta Picata

Conclusions

Considering the results obtained during the survey in Ite, there is evidence that the Peruvian tern is present in the area during the winter of this year (2015) where the species feeds at the sea.

This survey records for the first time the presence of *Sternula lorata* in Punta Picata and establishes its importance as a feeding area for the species.

The increasing human activity in the area is currently hampering the normal behavior of the species that used to use the sand beaches as resting areas.

Threats

In spite of its recognised importance, the Ite Wetlands have no legal protection so that there are no strategic plans for their management and protection.

Considerable amount of plastics and trash product of fisheries where found at the beaches of Ite and la Meca, threatening the life of seabirds, sea lions and marine turtles.

Pollution related to mining is evident in the area; recent studies stated that the values of cooper, arsenic and iron found in marine sediments in Ite beach exceeds the maximum permissible limits outlined by the Environmental Protection Agency (EPA).

There is an eminent threat of urban growing in the area already present in some of the desert plains near Ite.

Recommendations

Owing its proximity to Punta Picata and the breeding areas of Chile, it is advisable to make periodical surveys to the desert plains during the breeding season of the species in Peru (from November to April) and during the breeding season in Chile (from August to February).

More studies about the level of pollution in the wetland area is advisable.

An awareness program directed to fisherman and local people is needed to minimize the amount of garbage at the beach and sea.

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Pictures

Picture 1. Path across the wetland

Picture 2. Ite wetland

Picture 3. Chilean Flamingos at Ite wetland

Picture 4. New lagoons at the wetland's southern end

Picture 5. Recent human settlement at La Meca

Picture 6. Grey gull colony La Meca, beach

Picture 7. Evidence of mining pollution in La Meca

Picture 8.- Red-legged Cormorant at Punta Picata

Picture 10. Red-legged Cormorant nest built with plastic and fishing nets

Picture 11. Peruvian Tern at Punta Picata