

Supporting the Seabirds of Punta San Juan, Peru

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In September 2025 I was fortunate to spend just over 2 weeks as a volunteer at the Punta San Juan Program, in Southern Peru. Punta San Juan (PSJ) is a 133 acre Peninsula which is managed by the National Service of Protected Natural Areas of Peru (SERNANP) and is one of the most important breeding sites in Peru for the 'Guano Birds' (Guanay Cormorant, Peruvian Pelican and Peruvian Booby), as well as being home to Perus largest colony of Humboldt Penguins, as well as both South American Sea Lion & Fur Seal.

The area is rich in top marine predators due to its location on the Humboldt Current, in one of the worlds most productive EBUS (Eastern Boundary Upwelling Systems). This extremely nutrient rich system is what provides food for all of these marine predators, who in turn produce tonnes of guano, a top fertiliser and one that has been heavily harvested over centuries. Since 1909, PSJ has been a protected site to protect the seabird colonies and encourage breeding, in order to continue to produce guano. The Peninsula was walled off and guarded in 1940 to prevent predators such as fox and rat accessing the birds. However, the area is facing many issues that threaten these vital populations, including El Nino, Avian Influenza, Overfishing, Pollution and the effects of the Guano Harvest.

Our involvement began a couple of years ago in 2023, when our King Penguin Spike was crowned the winner of Penguins Internationals first ever Penguin Popularity competition, March of the Penguins Madness. Not only did this bring us National Coverage but it also secured a close bond with Penguins International, who asked if we would co-sponsor a Humboldt

Census across 40 sites in Peru (including PSJ) in 2024, which we did. The findings made for bad reading with 270 birds recorded during the moulting season, down from 1,621 recorded at the same time in 2022. This was attributed to a devastating combination of Avian Influenza, followed by an El Nino event.

In 2025, Penguins International again approached us to let us know that the Punta San Juan Program were looking for volunteers to help with a range of tasks on site. In total they were looking for 7 groups of volunteers to help with their research and conservation work. After a selection process I was fortunate enough to be chosen to spend just over 2 weeks at Punta San Juan in the seventh and final block of volunteers (both Peruvian and International).

After a 27 hour journey I arrived in the capital Lima on the 11 of September (my birthday) where I spent a couple of days before teaming up with Dr Susana Cardenas (director of PSJ) & my fellow international volunteers and catching the 8 hour night bus to Marcona, the local city. With me were 2 zookeepers from America, as well as an American engineer who would oversee nest box construction.

Arriving at Marcona at 6am, we were then taken to the reserve where we would be staying for the next 16 days and after a quick settling in we were straight to work. We were teamed with two volunteers on their last day to monitor the effects of the Guano Harvest on the Humboldt Penguins. Harvesting is allowed on site once every 5 years and whilst every effort is made to minimise disturbance, it does still impact the birds.

Monitoring the harvest involved two volunteers stationed at a view point each for three hours (either 6-9am, or 9-12pm) and in communication via walkie talkie. One volunteer would be overlooking the Humboldt nest sites and one monitoring their progress to the Pacific. We were looking for any

form of disturbance in the penguins, were they alert, did they change direction or did they flee, and if any of these reactions were seen, what was the cause. This was all logged in notebooks to be added to a database when back at basecamp later.

The Harvesters are screened off from the birds with 50kg sacks of guano piled 4 high to create a barrier, 50 metres minimum distance to the birds. The guano is dug by hand with the only machinery in use a truck coming in every 30 minutes or so to collect the bags. Harvesters are dressed in beige to mimic the surroundings and would work from 5.45am through until just before mid-day and it is quite the sight seeing them running these huge, heavy bags of guano on their shoulders onto the truck.

The most obvious thing that stood out from observing is how much more sensitive the wild penguins were compared to our zoo birds. Single birds very rarely set off by themselves, and even groups of 3 or 4 rarely made the trip without any disturbance. The nest site being observed was up on a cliff, but with access to the ocean, but the birds preferred to travel across the peninsula to beaches over a kilometre away. There were also a massive difference in the cleanliness of birds going to the ocean compared to those coming back! Ocean going birds were filthy! The most birds recorded at one time was 13.

Our main task whilst on site was the construction of artificial nests to go out into the reserve for 2026. In 2024 there were an estimated 400 birds breeding on site who were rearing 1.2 chicks per pair. For the population to be viable this needs to be 1.7 so the hope is that by building 100 artificial nests, adding to the 90 odd on site already, this would increase their success. Many of the nesting Humboldts are digging scrapes into the guano and although these are successful, many eggs and chicks are lost to Turkey Vultures and Gulls, as well as being exposed to the Sun, rats and Vampire Bats as the bird have less guano to dig down into.

Artificial nests have been proven to increase breeding success with African Penguins so the hope is that if they prove to work at PSJ, the design can be rolled out to other sites across Peru. In collaboration with Engineers Without Borders, PSJ had come up with a design for nest boxes which included good ventilation to avoid any overheating issues. A wire and wooden frame was developed and then coated in 4 layers of cement (1 a day). Over 4 weeks 100 nest boxes were completed and will be going out into the reserve in February, when the birds have dispersed after moulting. It is also hoped that some will go to other sites in Peru, and that now we have a design, this can be rolled out across the Penguins range.

Other tasks that we were involved with was a daily walk of the coast and its 20 beaches, looking for tagged sea lions, looking for any pinniped fatalities, observing any interactions between the pinnipeds and plastic, monitoring the fishing fleet (fishing not permitted within a certain distance) and also recording any 'unusual bird species' such as waders and egrets.

We were all assigned nest sites that were photographed every Friday by drone and we had to go through the photos, assign numbers to active nests and input into a database if there was a penguin/pair of penguins present, were they standing or sitting and were eggs, chicks or fledglings visible. These records go back as far as May from this year and give an insight into where the more successful locations are.

My favourite experience at PSJ was the day I was asked to join one of PSJ's field biologists on his rounds to check some of the hard to access Humboldt nests, and to check their predator control measures. Hard to access nests are those in some of the sea caves or collapsed cliffs. We were able to observe many nesting penguins and even some very small chicks. We also saw a colony of Vampire Bats, known to drink the blood from the feet of young Humboldts.

Unfortunately, there was lots of evidence of rats, with multiple footprints found and at least one predated Humboldt egg. Rats are controlled on site using Good Nature traps, some are linked to phones via Bluetooth, and others have cameras on them to record their success, as the Vulture population is very quick to clear up.

We were fortunate enough to get some presentations from the team and although we saw reasonable numbers of Penguins, Pelicans and other seabirds, the numbers are not where they should be. The main issue facing the populations at this time is El Nino, this brings in warmer water into the Humboldt Current, which disperses the anchovy population (the main prey species). El Nino is becoming more regular and more erratic so it is harder for the local populations to recover. This, coupled with Avian Influenza has laid to a dramatic decline in seabird populations, with Peruvian Pelicans especially blighted by AI, and the Humboldt population on site going from 5,000 to 400 in a very short time.

Fishing is also an issue, with the fishing industry taking up to 88% of the 'energy' from the local fish stock, compared to 2.2% for the seabirds. The reserve has a protected coastline but many fishing boats could be daily. 922 penguins died in fishing nets between 1991-1998. Pollution was also very evident, every beach had plastic bottles, food containers, nets and other waste, despite being so isolated.

The reserve itself was unlike anywhere I had ever been before, no vegetation so the only colours you saw were beige and blue, for the sky and sea, it was like being on the moon. Sunsets were spectacular and at 6pm every evening and as soon as the sun disappeared the wind whipped up. Electricity was either solar or from a generator and only from 9am to 9pm.

On site we had a main cabin, with an office, seating area and kitchen. Bedrooms were shared and were bunk beds and showers were cold (very!).

PSJ has an office in the nearby city of Marcona where you could do your washing and have a warm shower. We even had three earthquakes, the strongest being measured at 5.8 locally.

16 days raced by and it was soon time for the long trip home but an absolutely fantastic experience, with a major bucket list tick of wild penguins. We were thrilled to be able to help in a very small way and look forward to hearing how the nests boxes fare over the coming years. We at Birdland will continue to support Punta San Juan with collections, donations and raising awareness.

If you'd like any further info on the work that they do, or how to get involved then visit <https://www.puntasanjuan.org> or drop me a message on alistair@birdland.co.uk