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# Discovering Clay Licks



Article and Photos  
By Alan Lee

>> *When I first arrived in South America* seven years ago, I had not heard of parrot clay licks. I had no idea that the forests of the Amazon concealed this remarkable phenomenon – parrots descending to patches of riverbank on a daily basis to eat clay. Although many species of parrot have been recorded eating dirt in various parts of the world, nowhere is it as regular and spectacular as on the ‘colpas’ of Peru. The soil, which is high in sodium, binds natural toxins in their diets.

A pair of Blue-and-Gold Macaws watches a departing flush of Mealy Parrots along with one stunning Orange-cheeked Amazon (right). A big flush from the clay lick is a sensational experience. Constant squawking, an alarm call, a millisecond of silence and the cliff erupts with colour and noise (above).





# Why Eat Soil?



Parrots eat soil in many parts of the world, and we're learning about fresh discoveries of "geophagy" or earth-eating every year. So far, it's not exactly clear why they eat soil, although it appears to provide them with biologically important minerals and clays which have the potential to neutralize some of the toxins in their food. Since captive birds have diets that have adequate minerals and no toxins, it is unknown if these birds would benefit from eating clays. Many birds do seem to enjoy it if it is made available.

Peruvian clay licks are the best known and most often visited as they are both well protected and attract large numbers of spectacular parrots.

I HAD NOT BEEN LONG IN SOUTHEASTERN PERU as a Resident Naturalist at the Tambopata River's first ecotourism lodge – Explorer's Inn – when I got my first chance to visit one of these sites. My first experience, at what is a fairly minor clay lick by the region's standards, left me awestruck. The 'colpita' is a clay bank approximately 6m (20 ft) high and 15m (50 ft) wide. On this fairly small area of clay hundreds of Dusky-headed Conures (*Aratinga weddellii*) vied for space with Blue-headed Parrots (*Pionus menstruus*). These two smaller species were easily displaced by the larger birds: Mealy Amazons (*Amazona farinosa*), Yellow-crowned Amazons (*A. ochrocephala*) and Severe Macaws (*Ara severa*).

Somewhere in the hum of wings and bitter squawk of a parrot jostled off its position, I'd catch a flash of bright red. It was like trying to catch a glimpse of the region's dazzling blue Morpho butterflies. It turned out that I was seeing the underside of the wings of the Orange-checked parrot (*Pyrilia barrabandi*), a lot shier and less common at the clay lick. When I finally fixed my binoculars on one perched precariously next to a Mealy Amazon

more than twice his size, my heart was stolen. The beautiful white-rimmed eyes, black head, with blushing cheeks contrasting with the emerald green body made this parrot my favourite of the region's twenty species, and has been so ever since.

Unfortunately I could not enjoy the view forever; one of the many flushes soon had all the parrots flying up over the river in a multi-coloured blur of wings and great cacophony of calls.

Sometimes these flushes are due to disturbances we can identify from the blind – a passing boat, low flying vulture or an approaching Tayra, but often there seems to be no cause at all; just mass paranoia. Sometimes the fear of coming to the ground to feed is so great it would keep the birds away completely. There was always suspense amongst us observers: Would we be treated to an unrivalled visual spectacle or would our 4 am wake-up and hour long wait on an unpadded wooden bench be in vain?



Other clay lick sites have been discovered in Brazil, Bolivia, Ecuador, and Mexico. Outside the New World, clay licks have also been found in central Africa and Papua New Guinea.

Visit our youtube channel ([www.parrots.org/claylick](http://www.parrots.org/claylick)) to see videos of parrots eating soil in the wild!

Visit <http://macawmonitoring.com/> for more of Alan's photos.

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Macaws are the headliners of the Peruvian clay licks. They build suspense by gathering in the nearby trees to frolic, often for hours, before descending to the bank to eat clay.



Hundreds of White-bellied Parrots, Red-bellied, Red-shouldered and Blue-and-gold Macaws gather to eat dead palms near Lake Sandoval. Like the soil of the clay licks, this palm is also high in sodium.

>>> WITH RUMOUR OF BIGGER AND BETTER clay licks, I was itching to get upriver. My chance came at last to go as an assistant guide on a special camping trip to a big colpa named 'Chuncho'. And big it is! Located half an hour upriver by boat from the last park control post and human settlements, it's up to one kilometer (.062 mi) long, and ten meters (32 ft) high. And the number of birds that visited the next sunny morning was beyond my ability to count.

All the species I had become used to seeing were joined by dozens of White-eyed Conures (*Aratinga leucophthalma*) and the first Green-wing Macaws (*Ara chloropterus*) appeared in the trees. It was several hours before they started to drift to a long Shebon palm frond over the clay. I was concentrating so much on this build up I had missed the arrival of some Scarlet (*Ara macao*), and Blue-and-Gold Macaws (*Ara ararauna*). When they did finally all come down, the visual spectacle of swirling primary colours was addictive. I wanted more.

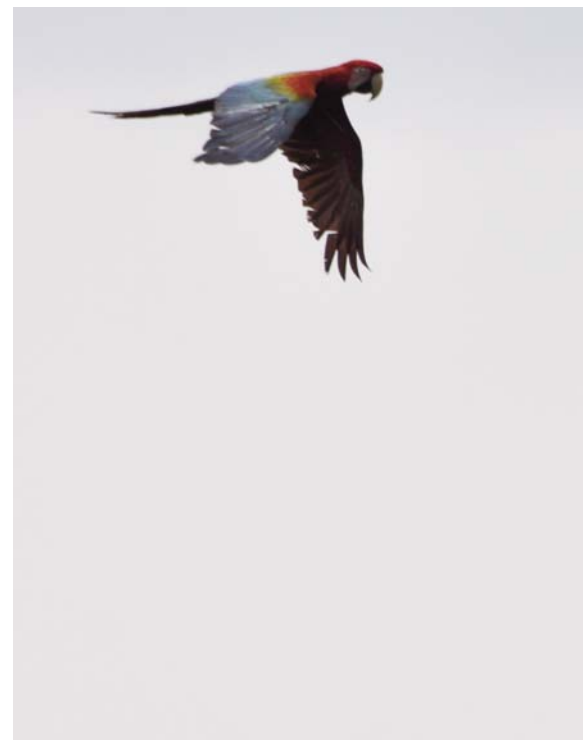
DURING MY GUIDING TIME at Explorer's Inn I had heard about the Tambopata Macaw Project, which took volunteers to help monitor various aspects of macaw ecology at the Tambopata Research Centre (TRC). I applied and was successful, but I was initially

disappointed to hear that I would be posted at Posada Amazonas, a community owned lodge downriver from Explorer's Inn. The clay lick here, 'Hermosa' (meaning beautiful) is intermediate in size. My disappointment was short-lived however, as Posada turned out to be special for many reasons. The viewing blind was just 30 m (100 ft) from the face of the clay lick allowing great close up experiences with the Green-wing Macaws. Here I was also introduced to a clay lick hidden in the forest interior. The blind there is also very close, allowing intimate views of Blue-headed Parrots and Mealy Amazons.

After a month at Posada I finally got to travel to TRC and the 'Colpa Colorada' (Red clay lick). It was a dream come true – it was January and we were counting upwards of 400 Mealy Amazons, 400 White-eyed Conures and 400 more of the biggest mix of parrots I'd ever seen at a clay lick. Of the twenty species recorded in the surrounding forests, all but the Rock Parakeet (*Pyrrhura rupicola*) has been recorded on the clay lick at some time in the history of monitoring by the Tambopata Macaw Project. Fifteen species

Despite their generally cautious coexistence, Scarlet Macaws can't resist mobbing an unsuspecting Yellow-headed Vulture.

visit regularly. One of these is the endangered Blue-headed Macaw (*Primolius couloni*), a Peruvian near-endemic. It only appears on the lick in small numbers and one has to search the multitude of Red-bellied (*Orthopsittaca manilata*) and Severe Macaws carefully, or listen out for their nasal call. The near threatened Amazonian Parrotlet (*Nannopsittaca dachyilleae*) can sometimes be seen, along with Dusky-billed Parrotlets (*Forpus modestus*), at a section further up from the main







Thanks to the establishment of the Las Piedras Biodiversity Stations and support from Biosphere Expeditions, the clay lick on the Las Piedras River now supports the highest numbers of Green-wing Macaws of any clay lick I have seen.

clay lick. But apart from the sheer diversity of parrots, one of the unforgettable experiences is the large mixed flocks of Blue-and-Gold, Scarlet and Green-wing Macaws. Up to 200 individuals gather from mid-morning onwards, a spectacle that is a privilege to behold.

I HAVE NOW VISITED many other clay licks. Each one is unique and distinct in the mix of birds

that it attracts. As one travels east species diversity drops off. The eastern most clay licks we know of in Alta Floresta, central Brazil, are only visited by Crimson-bellied Conure (*Pyrrhura perlata*).

A few years ago Biosphere Expeditions, a company that integrates ordinary people into scientific survey work, contracted me to head up

the Las Piedras River to help monitor the impacts of boat traffic on colpas. The boat traffic was generated by a boom in the mahogany trade. The loggers drift their wood in rafts down the rivers and to sustain themselves during their weeks long journey they often hunt riverside wildlife, including macaws on clay licks. Despite the hunting I was impressed that this river still has a high density of parrot clay licks.



Still, conservation success stories like that are few and far between. There is great concern about increasing deforestation following the paving of a highway through the Tambopata area, bisecting the protected areas of Manu and the Tambopata National Reserve. Associated deforestation will isolate areas used by blue-and-yellow macaws, with unknown consequences on local populations. And the market for the hardwoods of macaw nesting trees continues to increase. How long we will continue to witness these awesome natural spectacles is of grave concern to conservationists and the ecotourism industry. A visit to the clay licks is highly recommended for anyone with an interest in parrots or amazing wildlife spectacles. Just be careful – they can also be addictive!



>> Alan Lee is completing his PhD titled "Landscape Level Effects of Clay Licks on Parrot Abundance and Ecology" at Manchester Metropolitan University (UK).